

**BLUE
BOOK
ADDENDUM**
(figures for 1992)

May 1994

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FOREWORD

In September 1992 the Committee of Governors published a survey of "Payment Systems in EC Member States" which soon became known as the Blue Book.

In March 1993, the Committee of Governors published the first addendum which contained an update to the text of the Blue Book chapter concerning France, as well as payment systems statistics concerning the year 1991.

This second addendum is the first to be released by the EMI. It contains some modifications to the country chapters of the Blue Book concerning Greece, Ireland and Italy as well as the payment systems statistics for 1992. The standard methodology which all central banks endeavoured to follow when compiling statistics has been put in an annex. As a rule, any major deviation vis-à-vis this methodology is indicated in footnotes.

This addendum also contains a new glossary which replaces that of the Blue Book. This new version is the result of an efficient co-operation between EU central banks and the central banks of the "Group of Ten" countries which, under the aegis of the BIS, publish a description of payment systems in their countries (the Red Book): we prepared our Blue Book glossary on the basis of an earlier version of the Red Book, while the G10 countries prepared their new glossary on the basis of our Blue Book glossary; moreover, the Secretariat of the Committee of Governors made some comments on the draft glossary of the Group of Ten, most of which were accepted by the authors of the Red Book.

Harmonisation with the G10 countries was also sought in the field of statistics. As in the Red Book, payment systems statistics now very often cover the five most recent years, and but they focus on raw figures, leaving it to the reader to make calculations.

Finally, the reader should not be surprised to discover that, in this period of rapid change in payment systems, only three EU countries have prepared an update to the text of the Blue Book. In fact, modifications concerning payment systems in Belgium, Germany, France, Italy, the Netherlands and UK may be found in the new edition of the Red Book to which the reader may usefully refer.

PART 1: UPDATES OF THE COUNTRY CHAPTERS

RECENT DEVELOPMENTS IN THE PAYMENT SYSTEM IN GREECE

1.1 BILATERAL ELECTRONIC CLEARING OF CHEQUES

In 1993, some large banks began exchanging on a bilateral basis, by magnetic media, the data of cheques purchased by each bank participating in the system, and which are drawn on accounts kept in another bank. The settlement is executed through reciprocal accounts. 7-8% of the cheques cleared previously by the traditional ACO are settled through this system.

1.2 MULTILATERAL ELECTRONIC CLEARING OF CHEQUES

The expansion on a multilateral basis of the bilateral electronic clearing of cheques is attempted by DIAS SA, the company which has been established by banks for the development of interbank payment systems in Greece.

This system will operate for the span of time required by DIAS SA to develop the systems of traditional means of payment.

Temporarily, the banks who participate will send to DIAS SA, by magnetic media, the data of cheques which have been purchased and have been drawn on accounts of customers kept in banks who participate in the system. As a later stage, the data will be sent by "file transfer".

DIAS SA will process the clearing of cheques data and the clearing results will be transmitted to the Bank of Greece for final settlement.

The system will be operating before the end of 1994.

1.3 INTERBANK FUNDS TRANSFER ORDERS

From March 1993 the Bank of Greece receives through SWIFT all interbank fund transfer orders drawn on the current accounts of the Bank.

Through this procedure: the dematerialisation of these transactions and their prompt processing have been achieved; information on current accounts balances of the banks is now possible within a very short time.

RECENT DEVELOPMENTS IN THE PAYMENT SYSTEM IN IRELAND

SECTION 1: INSTITUTIONAL ASPECTS

1.3 THE ROLE OF THE CENTRAL BANK

During 1993 the two state-sponsored credit institutions - Agricultural Credit Corporation (now ACC Bank) and Industrial Credit Corporation - (now ICC Bank) - came under the supervisory authority of the Central Bank.

SECTION 3: INTERBANK EXCHANGE AND SETTLEMENT CIRCUITS

3.1.2 THE CENTRAL EXCHANGE

Further progress was made during the year on the integration of the Central Bank-sponsored Central Exchange with the Dublin Bankers' Clearing. It is anticipated that this integration will become operational sometime in 1994. As part of the progress towards this integration the settlement of obligations between participants in the Dublin Bankers' Clearing was brought forward to the day of the clearing/exchanges, which equalised with the settlement position that has been in the Central Exchange since 1986.

In addition, the meeting of participants in the Central Exchange at the Bank at 11.00 a.m. was discontinued. In its place the exchange of paper instruments is conducted at the same location and time as the similar exchange in the Dublin Bankers' Clearing, though in both mechanisms the bulk of instruments is exchanged bilaterally between the clearing departments of the participants. The calculation of obligations in the Central Exchange continues to be carried out by an official of the Bank.

3.1.4 TIMING OF SETTLEMENT AND PROVISION OF VALUE IN THE CLEARINGS

From April 1993 settlement between participants in the Dublin Bankers' Clearing has been brought forward to day 2 in the clearing cycle, i.e., the day of the exchange/clearing of instruments.

3.2.1 THE DAILY INTERBANK SETTLEMENT

From February 1994 the meeting of participants held to effect the Daily Interbank Settlement was discontinued. It has been replaced by the transmission, via S.W.I.F.T., of the payment instructions to effect end-of-day settlement. The settlement deadline remains 3.30 p.m. Following processing at the Bank the end-of-day settlement is finalised and agreed with participants, by 5.00 p.m.

5.4 MAIN PROJECTS AND POLICIES BEING IMPLEMENTED

A Feasibility Study into the institution of real-time gross settlement of large-value payments commenced on 1st February 1994. The Bank has undertaken to have such a system in place in Ireland by the end of 1996. The Feasibility Study, and the RTGS project itself, will be driven by the credit institutions with the Bank specifying minimum parameters, consistent with its concerns as supervisor, for its operation.

While the ultimate goal is to establish a RTGS system in Ireland by the end of 1996, related work underway aims, inter alia, to eliminate making large payments via telephone, because they are not currently backed by authorised debit instructions until the final settlement takes place at the end of the day over settlement accounts at the Bank. This work comprises:

1. Automation of the end-of-day settlement from February 1994.
2. Automation of interbank payment messages by mid-1994.
3. The development of intraday payment limits.

1. Automation of the end-of-day settlement

Starting in February 1994, participants make all instructions relating to transactions on their Bank settlement accounts by S.W.I.F.T. This "automated" end-of-day settlement obviates the need for attendance at the Bank. Participants which do not migrate to S.W.I.F.T. will not be permitted to continue to settle directly in the Bank. The Bank has already signalled to the banking community that continued operation of a Central Bank settlement account will require membership of S.W.I.F.T.

2. Automation of interbank payment messages

A further step in improving the security of interbank payments is the plan to "automate" all interbank large-value same-day payments by mid-1994. By this time the telephone communication of interbank money market payments should be replaced fully by S.W.I.F.T. authenticated payment instructions. After this date credit institutions operating settlement accounts at the Bank will be required to give an undertaking to the Bank to make all interbank large-value payments by S.W.I.F.T. and not to accept payments by any other means.

3. Establishment of Intraday Payment Limits

When the foregoing improvements have been completed in mid-1994 the Bank has indicated that the opportunity should be taken to make use of the information, such as the level of intraday credit being taken, which is expected to come onstream from the automation of payment messages, to facilitate the effective institution of a regime of bilateral intraday exposure limits between participants. The experience of such a regime should provide participants with a useful discipline relevant to a RTGS regime where the irrecoverable execution of payments is expected to require a combination of available liquidity through liquid balances and credit with more targeted time scheduling of inputting of payments into the system.

RECENT DEVELOPMENTS IN THE PAYMENT SYSTEM IN ITALY

SECTION 1: THE INSTITUTIONAL ASPECTS

1.1 GENERAL LEGAL ASPECTS

The Decree-Law no. 481 of 14 December 1992 absorbed the Second Council Directive on Banking Co-ordination, partly amending the Bank Law of 1936. In a later stage, the Consolidation Act of 27 August 1993 has included and co-ordinated several provisions concerning the banking activity: the Decree-Law 481/1992; the articles of the Bank Law of 1936 that had not been repealed; Law 197/1991 on financial companies; Law 218/1990 on mergers and transformations of publicly-owned credit institutions, etc.

Law 154/1992 empowered the Banca d'Italia to decide upon the information banks are required to provide to customers.

1.2 FINANCIAL INTERMEDIARIES THAT PROVIDE PAYMENT SERVICES

The process of denationalisation of the Postal Administration, started in September 1993, will lead, within three years, to the transformation of the Postal Administration into a company limited by shares. The change of the legal status will supposedly enable the Postal Administration to overcome the regulatory constraints presently binding its activity in the field of payment services.

1.3 THE ROLE OF THE CENTRAL BANK

The Consolidation Act of August 1993 entrusts the Banca d'Italia with explicit responsibilities and powers in the area of the payment system. Article 146 lays down that "the Banca d'Italia promotes the smooth functioning of payment systems. With this view it can enact specific regulations designed to ensure effective and reliable clearing and payment systems".

SECTION 2: SUMMARY INFORMATION ON PAYMENT MEDIA USED BY NON-BANKS

2.2.1 CHEQUES

As a result of the initiatives promoted in the field of out-of-town cheques, in 1992 90 per cent of such instruments were exchanged through the clearing system.

Other initiatives aimed at increasing the volume of the cheques exchanged through the clearing system and at further reducing payment execution times are under way. According to an interbank agreement issued by the Italian Bankers' Association in April 1993 banks are required to exchange all cheques and bankers' drafts through the clearing system. From a technical standpoint, an electronic procedure for the prompt notification of the cheques status is presently under study.

2.2.2 CREDIT TRANSFERS AND DIRECT DEBITS

A procedure based upon the interbank network (RNI) has been made available in 1991 in response to the needs of firms to rationalise and reduce the cost of their transactions with the banking

system. It enables individual firms to transmit direct debits and electronic bank receipts (RIBA) to various collecting banks through a single institution which acts as centralising agent. Any users directly linked to the interbank network (banks, SIA, authorised data processing centres) are eligible to act as centralising agents.

Since September 1992 the interbank exchange of direct debits and RIBA has been carried out through the national clearing system (Retail subsystem).

2.3 RECENT DEVELOPMENTS

As the overhaul of the interbank circuits of payment instruments is being finalised, it is increasingly more important to assess the effects of the new interbank procedures on payment services provided to final customers. In 1993 the Banca d'Italia, with the collaboration of the CIPA, promoted initiatives aimed at checking whether payment execution times are in line with the faster processing times made possible by the new interbank procedures. In order to evaluate customers' needs, the Italian Bankers' Association has carried out two specific sample surveys addressed to households and businesses. Following the enactment of Law 154/1992 (Transparency Law), the Italian Bankers' Association has also set up a banking Ombudsman entrusted with the task of examining customers' complaints.

Increasing attention is devoted to the businesses' needs in the payments field. A project promoted by the Italian Bankers' Association and the Confindustria provides for a gradual adoption of Edifact (Electronic Data Interchange for Administration, Commerce and Transport) standards¹ for the payment instructions sent by businesses to banks and the resulting transactions exchanged among banks via the interbank network (RNI). Messages for the exchange of direct debits and Riba through the RNI already comply with the Edifact standards. Furthermore, in January 1993 the Banca d'Italia, the Italian Bankers' Association and the Confindustria set up an "observatory" on payment systems entrusted with studying businesses' needs in the field of payment services.

SECTION 4: SPECIAL USE OF INTERBANK TRANSFER SYSTEMS FOR INTERNATIONAL AND DOMESTIC TRANSACTIONS

4.2 EXCHANGE AND SETTLEMENT SYSTEMS FOR SECURITIES TRANSACTIONS

In the field of the exchange and settlement systems for securities transactions, initiatives are in progress to make it possible for all stock exchange trades to be spot transactions, with settlement on the fifth day following the trade (rolling settlement). The launch of the new trading procedure, originally scheduled for the beginning of 1993, had to be delayed up to the beginning of 1994.

The Italian futures market in government securities (MIF), set up through the Ministerial Decree of 18 February 1992, became operational in September 1992. Intermediaries already operating in the screen-based market for government securities (banks, securities firms and investment funds)

¹ The EDIFACT project makes it possible to transfer, via telematic networks, standardized messages relating to the whole commercial cycle (buy and sell orders, billing, credit transfers, debit and credit notes).

and specialised intermediaries (brokers and locals) are eligible to participate. There are two categories of market participants: primary dealers, acting as market makers, and other participants (dealers, brokers and locals). At present the number of operators participating in the market totals 24.

Final payment of contracts is ensured by the Clearing and Guarantee House set up in March 1992 with the task of ensuring the timely settlement of the contracts concluded on both the cash and the derivative markets. In the futures market the House acts as the central counterparty of every single transaction. Participants in the market may take part in the House as:

- general members, who may clear and settle transactions both for their own account and on behalf of other participants;
- individual members, who may clear and settle transactions only for their own account;
- indirect members, who may settle transactions only through the services of a general member.

With particular regard to cash markets, the House now plays the role of guarantor just for the stock market and manages a special Guarantee Fund set up to handle the risks of default and guarantee finality of settlement on the date foreseen by the stock exchange calendar. This role does not involve any direct assumption of risk by the House. The Fund guarantees all the transactions carried out on listed shares and settled through monthly settlements; it is to be flanked by another system of trade guarantees once the rolling settlement becomes operational.

SECTION 5: THE ROLE OF THE CENTRAL BANK IN THE INTERBANK SETTLEMENT SYSTEM

5.4 MAIN PROJECTS AND POLICIES BEING IMPLEMENTED

With regard to the domestic payment system, the most important issue being studied is the formulation of an organic policy for the control of credit and liquidity risks.

Medium-term initiatives must be distinguished from the measures already adopted or still under study within the present configuration of the clearing system.

In the medium term, the Banca d'Italia pursues a wider utilisation of the gross settlement system (BISS) through which only a minor portion of interbank funds transfers is presently settled. A thorough overhaul of the BISS is implemental to the achievement of this goal. First, it will be necessary to supply more flexible instruments in order to cover intraday unbalances of banks' treasuries. With this view the Treasury Minister Decree issued on 5 February 1993 empowered the Banca d'Italia to extend the intraday use of the compulsory reserve beyond the limit of the mobilising margin, which currently amounts to 7 per cent of the reserves due. Second, it will be necessary to provide banks with new information and operational facilities, such as pending queues. These changes, however, are to be carried out gradually in order to minimise the impact on banks' operating procedures.

At the operating level, the risk control measures currently adopted provide for the monitoring of participants' intraday exposures carried out by the Banca d'Italia during the final stage of the operational day. Furthermore, the Banca d'Italia has often awaken participants to the risks inherent to

the high debit balances that occur during the clearing process, highlighting how important co-operation in risk control policy can be in order to minimise costs.

In 1992, as a result of these measures, the Management Committee of the screen-based market for interbank deposits (MID), launched in February 1990, set up a working group to identify measures for the control of banks' exposures on this market. Over three years of activity the MID has recorded a considerable growth. At present, over 90 per cent of the transactions carried out in the MID is settled via the Electronic Memoranda subsystem. As a consequence, the risks that may arise in this market -- which is thoroughly self-regulated -- have considerably increased, thus weakening the stability of the interbank payment system. With a view to meeting these new needs, the Management Committee -- in concert with the Banca d'Italia -- has identified a set of proposals for the monitoring and control of risks.

These interventions -- recently approved by the General Meeting of market participants -- focus on risk control during the trading phase, in order to ensure the overall stability of the market and to prevent risks arisen during the trading stage to be shifted into the settlement phase. In particular, these interventions provide for:

- the real-time monitoring of each single participant's debit position according to indicators specifically determined (that may be seen on the operators' monitors);
- the identification of common standards to assess each single participant's risk category in order to determine break-even points for the indicators.

The project for the monitoring and control of risks in the MID safeguards the principle of market self-regulation and further co-operation between the central bank and operators that aims at minimising the cost of risk control measures. As a matter of fact, close co-operation seems to be the most efficient solution to this very delicate issue.

With a view to ensuring the settlement of debit positions, further controls over participants' observance of limits may be eventually introduced; in addition, penalties might be established by the body entrusted with the market self-regulation, in proportion to the frequency and extent of the limits exceeded.

PART 2: STATISTICAL TABLES FOR 1992

General Rules:

Unless otherwise specified:

- the currency unit in all statistical tables is the local currency, except in the comparative tables where figures are converted into ECUs;
- the figures do not related to overseas (= non-European) territories;
- the abbreviations used read as follows:
 - (e) = estimated;
 - n.a. = are not available;
 - = non existent;
 - (neg) = negligible.

Belgium

Table 1
Basic statistical data

	1988	1989	1990	1991	1992
Population*: (000s)	9,902	9,938	9,967	10,004	10,045
Gross domestic product: (billions)	5,571.0	6,052.8	6,426.4	6,722.8	7,054.2
Exchange rate vis-à-vis ECU*	43.429	43.309	42.426	42.223	41.593

* Average for the year

Table 2
Settlement media used by non-banks

BEF billions

	1988	1989	1990	1991	1992
Notes and coins	415.6	421.7	413.2	417.0	414.1
Transferable deposits(1)	779.9	876.9	905.4	917.6	902.0
Narrow money supply (M_1)	1,195.5	1,298.6	1,318.6	1,334.6	1,316.1
Transferable deposits in foreign currencies	n.a.	n.a.	n.a.	n.a.	80.2

(1) in local currency only

Table 3
Settlement media used by deposit-taking institutions

BEF billions

	1988	1989	1990	1991	1992
Required reserves held at central bank	0	0	0	0	0
Free reserves held at central bank(1)	n.a.	n.a.	n.a.	4.05	2.09
Transferable deposits at other institutions (2)	298.4	310.9	415.9	452.4	504.4

(1) Average of end of month figures

(2) Average of end of quarter figures

Belgium

Table 4
Banknotes and coins
(total value, end of year)

	BEF billions				
	1988	1989	1990	1991	1992
Total banknotes issued	431.8	443.1	428.5	431.5	430.2
<i>of which:</i>					
BEF 10,000 (1)	-	-	-	-	15.3
BEF 5,000	298.9	305.0	295.8	297.8	279.1
BEF 1,000	106.8	111.8	106.8	107.3	109.1
BEF 500	11.6	12.1	12.2	12.4	12.6
BEF 100	13.1	13.6	13.7	14.0	14.1
BEF 50	1.4	0.6	-	-	-
Coins issued	14.0	16.3	17.8	18.6	17.9
Notes and coins held by credit institutions	30.2	37.7	33.1	33.1	34.0
Notes and coins in circulation outside credit institutions	415.6	421.7	413.2	417.0	414.1

(1) Notes with a denomination of BEF 10,000 were only issued from 11th December 1992.

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts (in thousands)	Value of accounts (BEF billions)
Central bank	1	18		
Commercial banks	94	3,515 (1)	3,839	579.1
Savings banks	28	3,748 (2)	1,641	82.2
Public Credit Institutions	6	3,080 (3)	3,148	163.1
Postcheque	1	2,164 (4)	1,185	77.6
TOTAL	130	12,525	9,813	902.0
Branches of foreign banks	39	n.a.	n.a.	n.a.
<i>of which EC based</i>	23	n.a.	n.a.	n.a.

- (1) 155 non-full size branches excluded.
- (2) 6,753 non-full size branches excluded.
- (3) 927 non-full size branches excluded.
- (4) 753 non-full size branches excluded.

Table 6
Cash dispensers, ATMs and EFT POS terminals
(end of year)

	1988	1989	1990	1991	1992
Cash dispensers and ATMs					
Number of networks	4	3	3	3	3
Number of machines	844	913	939	1,052	1,096
Volume of transactions (<i>millions</i>)	56.65	67.89	70.86	80.79	88.33
Value of transactions (<i>billions</i>)	199.69	228.63	248.52	296.71	331.67
EFT POS					
Number of networks	6	5	5	6	6
Number of points of sale(1)	16,719	21,503	23,616	26,578	32,495
Volume of transactions (<i>millions</i>)	52.5	66.5	79.0	98.8	120.7
Value of transactions (<i>billions</i>)	68.3	100.3	135.7	178.9	231.2

(1) The number of machines is 19,118 in 1988; 24,644 in 1989; 28,253 in 1990; 32,199 in 1991; 40,627 in 1992

Table 7
Number of payment cards in circulation*
(end of year)

	1988	1989	1990	1991	1992
	000s				
Cards with a cash function	5,029	5,547	6,377	6,857	7,792
Cards with a debit/credit function	5,140	5,655	6,485	6,967	7,907
<i>of which:</i>					
<i>cards with a debit function</i>	4,535	4,672	5,250	5,466	6,101
<i>cards with a credit function(1)</i>	605	983	1,235	1,501	1,806
Cards with a cheque guarantee function	4,426	4,228	4,651	4,653	4,598
Retailer cards	690	736	688	767	913

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.

1 Most cards with a credit function are of the delayed debit type.

Belgium

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions**

	millions				
	1988	1989	1990	1991	1992
Clearing House	33.36	31.63	27.87	27.28	24.67
Securities Clearing balances	-	-	-	neg	neg
Postal Drafts	3.26	3.19	2.90	2.63	2.21
FX transactions (2)	0.09	0.06	0.07	0.03	0.46
Debits	7.90	6.50	5.87	6.22	5.55
Ordinary credits	3.21	3.98	3.86	3.88	3.35
Bilaterally exchanged credits	9.32	8.89	6.92	7.61	7.65
Province	9.53	8.96	8.21	6.90	5.45
Others	0.05	0.05	0.04	0.01	0.00
C.E.C.	499.94	549.65	610.33	652.12	695.20
Direct Debits	33.31	39.10	45.32	50.76	56.53
Truncated Cheques	115.23	113.53	114.88	110.43	99.12
ATMs and POS	98.28	120.98	145.19	164.92	191.31
Credit Transfers	253.12	276.04	304.93	325.94	348.08
Large value Transfers	-	-	0.01	0.07	0.16

- 1 In January 1991, the NBB launched a securities clearing system for dematerialised Treasury certificates and bonds.
- 2 The rupture in the series of FX transactions between 1991 and 1992 is due to a better breakdown of the credit transfers.

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions**

	BEF billions				
	1988	1989	1990	1991	1992
Clearing House	135,349	164,687	181,193	187,000	203,067
Securities Clearing balances				5,255	5,531
Postal Drafts	69	63	41	39	43
FX transactions (2)	15,265	16,224	14,037	11,841	21,970
Debits	10,045	11,858	20,820	18,465	18,482
Ordinary credits	85,210	102,160	115,828	137,951	149,278
Bilaterally exchanged credits	n.a.	209	162	295	250
Province	8,910	9,264	9,451	5,833	6,518
Others	15,850	24,909	20,854	7,321	995
C.E.C.	7,200	8,125	9,529	12,334	15,928
Direct Debits	186	218	259	300	341
Truncated Cheques	1,074	1,108	1,161	1,170	1,158
ATMs and POS	256	319	387	455	541
Credit Transfers	5,684	6,480	7,474	8,298	9,322
Large value Transfers	-	-	248	2,111	4,566

- 1 In January 1991, the NBB launched a securities clearing system for dematerialised Treasury certificates and bonds.
- 2 The rupture in the series of FX transactions between 1991 and 1992 is due to a better breakdown of the credit transfers.

Belgium

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

	1988	1989	1990	1991	1992
Securities Clearing System of the NBB					
Treasury certificates (1)	-	-	-	14.435	19.430
Linear Bonds (1)	-	-	-	38.914	60.857
C.I.K					
Equity transactions (2) (in millions)	207.7	277.6	269.3	260.8	253.1

- 1 In January 1991, the NBB launched a securities Clearing system for dematerialised Treasury certificates and linear bonds.
- 2 The volume of equity transactions refers to the number of shares and not the number of transactions. The number of transactions is estimated at 750,000 in 1992.

Table 11

**Transfer instructions handled by securities settlement systems:
value of transactions**

BEF billions

	1988	1989	1990	1991	1992
Securities Clearing System of the NBB					
Treasury certificates (1)	-	-	-	6,999	9,694
Linear Bonds (1)	-	-	-	3,990	8,567
C.I.K					
Equity transactions	395.6	418.0	319.2	290.0	315.6

- 1 In January 1991, the NBB launched a securities Clearing system for dematerialised Treasury certificates and linear bonds.

Belgium

Table 12

**Indicators of use of various cashless payment instruments:
volume of transactions**

	BEF millions				
	1988	1989	1990	1991	1992
Cheques issued	244.5	230.5	206.2	193.8	174.2
Payments by debit and credit cards	61.9	78.7	95.5	119.3	144.7
Paper-based credit transfers	5.5	6.0	5.6	5.2	4.6
Paperless credit transfers	420.6	460.6	495.9	506.6	524.0
Direct debits (1)	54.9	57.3	65.9	73.2	81.3
Others	-	-	-	-	-
Total	787.4	833.1	869.5	898.1	928.8

1 Revised figures

Table 13

**Indicators of use of various cashless payment instruments:
value of transactions**

	BEF billions				
Instruments	1988	1989	1990	1991	1992
Cheques issued	13,134	13,713	12,179	9,937	12,460
Payments by debit and credit cards	109	153	205	262	331
Paper-based credit transfers	91,485	108,841	122,389	141,592	153,511
Paperless credit transfers(1)	21,598	24,625	27,654	32,808	35,284
Direct debits (1)	306	317	374	430	485
Others	-	-	-	-	-
Total	126,632	147,649	162,801	185,029	202,071

1 Revised figures

Table 14
Participation in S.W.I.F.T. by domestic institutions

	1988	1989	1990	1991	1992
S.W.I.F.T. users	60	59	63	72	76
<i>of which:</i>					
<i>members</i>	31	32	33	36	35
<i>sub-members</i>	28	26	28	35	39
<i>participants</i>	1	1	2	1	2
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
members	1,581	1,697	1,812	1,963	2,074
sub-members	1,228	1,315	1,469	1,607	1,738
participants	27	37	63	78	91

Table 15
S.W.I.F.T. message flows to/from domestic users

	1988	1989	1990	1991	1992
Total messages sent	12,915,685	14,139,694	15,297,042	16,567,543	18,097,152
<i>of which:</i>					
<i>category I</i>	4,716,617	5,180,098	5,222,108	5,347,697	5,751,632
<i>category II</i>	3,376,844	3,654,675	4,187,387	4,698,968	5,030,069
<i>sent/received to/from domestic users</i>	2,011,356	2,292,087	2,355,072	2,524,657	2,920,427
Total messages received:	10,640,147	11,792,454	12,619,118	13,868,647	15,086,640
<i>of which:</i>					
<i>category I</i>	-	-	-	-	5,171,658
<i>category II</i>	-	-	-	-	3,596,967
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,962

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

Table 1
Basic statistical data

	1988	1989	1990	1991	1992
Population* (000s)	5,130	5,132	5,141	5,154	5,169
Gross domestic product: (billions)	732.1	767.4	802.9	833.4	867.7
Exchange rate vis-à-vis ECU*	7.9515	8.0493	7.8565	7.9086	7.8093

* Average for the year

Table 2
Settlement media used by non-banks
(end of year)

	DKK billions				
	1988	1989	1990	1991	1992
Notes and coins	21.93	23.05	23.62	24.24	24.97
Transferable deposits (1)	184.85	187.76	202.76	224.72	218.45
<i>of which held by:</i>					
<i>households (2)</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>106.99</i>
<i>corporate sector (3)</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>98.15</i>
<i>other (public sector)</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>13.31</i>

- (1) Sight deposits with residents in DKK and in foreign currencies.
(2) Non-business sector
(3) Business sector

Table 3
Settlement media used by deposit-taking institutions
(end of year)

	DKK billions				
	1988	1989	1990	1991	1992
Required reserves held at central bank	0	0	0	0	0
Free reserves held at central bank (1)	0	0	0	0	0
Transferable deposits at other institutions (1)	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	14.39	3.35

- (1) Deposits on current accounts

Denmark

Table 4
Banknotes and coins
(total value, end of year)

	DKK billions				
	1988	1989	1990	1991	1992
Total banknotes issued	22.09	23.29	24.45	25.57	25.39
<i>of which:</i>					
<i>DKK 1,000</i>	11.55	12.41	13.17	14.03	14.16
<i>DKK 500</i>	3.36	3.43	3.69	3.85	3.81
<i>DKK 100</i>	5.74	5.96	6.54	6.67	6.40
<i>DKK 50</i>	0.40	0.41	0.59	0.63	0.62
<i>DKK 20</i>	0.77	0.80	0.20	0.14	0.12
<i>DKK 10</i>	0.11	0.11	0.10	0.10	0.10
<i>Other (1)</i>	0.17	0.17	0.15	0.14	0.17
Coins issued:	1.78	1.76	2.53	2.65	2.63
Notes and coins held by credit institutions	1.94	2.00	3.36	3.98	3.05
Notes and coins in circulation outside credit institutions	21.93	23.05	23.62	24.24	24.97

(1) Special notes in circulation in the Faroe Islands.

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts (in thousands)	Value of accounts (DKK billions)
Central bank	1	1	0	0
Commercial banks and savings banks	184	2,651	n.a.	n.a.
Cooperative and rural banks	31	31	n.a.	n.a.
Post office (Giro Bank)	1	1,300	n.a.	n.a.
TOTAL	217	3,893	11,890	21,845
Branches of foreign banks	6	6	n.a.	n.a.
<i>of which EC based</i>	4	4	n.a.	n.a.

Table 6
Cash dispensers, ATMs and EFT POS terminals
(end of year)

	1988	1989	1990	1991	1992
Cash dispensers and ATMs					
Number of networks	1	1	1	1	1
Number of machines (e)	n.a.	n.a.	n.a.	370	525
Volume of transactions (millions)	n.a.	n.a.	n.a.	n.a.	26.79
Value of transactions (billions)	n.a.	n.a.	n.a.	n.a.	17.90
EFT POS					
Number of networks	1	1	1	1	1
Number of points of sale (1)	8,736	12,602	15,804	19,289	22,411
Volume of transactions (millions)	21.57	41.44	61.54	85.68	110.11
Value of transactions (billions)	11.17	19.45	27.48	37.54	39.25

(1) Number of machines

Table 7
Number of payment cards in circulation*
(end of year)

	1988	1989	1990	1991	1992
	000s				
Cards with a cash function	1,451	1,756	2,022	2,266	2,463
Cards with a debit/credit function	1,451	1,756	2,022	2,266	2,463
<i>of which:</i>					
<i>cards with a debit function</i>	1,321	1,617	1,807	2,104	2,299
<i>cards with a credit function</i>	130	139	152	162	164
Cards with a cheque guarantee function	275	325	240	199	180
Retailer cards	1,054	1,142	1,323	n.a.	n.a.

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.

Denmark

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions**

	millions				
	1988	1989	1990	1991	1992
DN Enquiry and transfer system	n.a.	0.389	0.400	0.349	0.356
DN Retail Clearing	287.237	307.108	329.119	342.870	373.101
Cheques	152.406	139.094	126.370	109.754	100.669
Direct debits	47.074	51.579	56.851	58.278	65.350
Paperless credit transfers	56.417	57.916	60.783	59.209	60.007
Payments by debit cards					
<i>By EFT POS</i>	21.767	41.443	61.542	85.675	110.105
<i>By paperslip</i>	6.593	13.623	19.640	25.588	31.985
Payment by credit cards	2.980	3.453	3.933	4.366	4.985
Giro Bank (Retail transfers (1))	223.752	225.523	236.214	231.000	244.805

- 1 As some credits involve cheques, some transactions are registered both under cheques and Giro Bank retail transfers.

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions**

	DKK billions				
	1988	1989	1990	1991	1992
DN Enquiry and transfer system	n.a.	11,905	13,115	12,571	16,340
DN Retail Clearing	2,140	2,197	2,076	1,837	1,833
Cheques	1,753	1,746	1,557	1,245	1,119
Direct debits	126	168	197	259	289
Paperless credit transfers	244	254	281	280	293
Payments by debit cards					
<i>By EFT POS</i>	11	19	27	38	39
<i>By paperslip</i>	4	8	11	12	14
Payment by credit cards	2	2	3	3	4
Giro Bank (Retail transfers (1))	3,069	3,275	3,431	3,423	3,900 (e)

- 1 See table 8.

Denmark

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

	1988	1989	1990	1991	1992
VP The Danish Securities centre (bonds and shares) (1)	4.7	4.5	4.2	3.5	3.3

(1) Number of trades between brokers/banks and with investors.

Table 11

**Transfer instructions handled by securities settlement systems:
value of transactions**

billions

	1988	1989	1990	1991	1992
VP The Danish Securities centre (1)	5,349	3,915	4,394	5,147	7,856
Bonds	5,296	9,829	4,326	5,087	7,793
Shares	53	86	68	60	63

(1) Nominal value

Denmark

Table 12
Indicators of use of various cashless payment instruments:
volume of transactions

	millions				
	1988	1989	1990	1991	1992
Cheques issued	192.7	174.5	156.3	134.6	124.3
<i>of which truncated</i>	192.7	174.5	156.3	134.6	124.3
Payments by debit and credit cards	31.3	58.5	85.1	115.6	147.1
Paper-based credit transfers	0	0	0	0	0
Paperless credit transfers	n.a.	283.8	297.4	290.5	304.7
<i>customer initiated</i>	280.2	283.4	297.0	290.2	304.3
<i>interbank/large-value</i>	n.a.	0.4	0.4	0.3	0.4
Direct debits	47.1	51.6	56.9	58.3	65.4
Total	n.a.	568.4	595.7	599.0	641.5

Table 13
Indicators of use of various cashless payment instruments:
value of transactions

	DKK billions				
	1988	1989	1990	1991	1992
Cheques issued	2,514	2,495	2,158	1,585	1,472
<i>of which truncated</i>	2,514	2,495	2,158	1,585	1,472
Payments by debit and credit cards	17	30	41	53	57
Paper-based credit transfers	0	0	0	0	0
Paperless credit transfers	n.a.	15,434	16,827	16,274	18,533 (e)
<i>customer initiated</i>	3,313	3,529	3,714	3,703	4,193 (e)
<i>interbank/large-value</i>	n.a.	11,905	13,115	12,571	14,340
Direct debits	126	168	197	259	289
Total	n.a.	18,127	19,223	18,171	20,351 (e)

Table 14
Participation in S.W.I.F.T. by domestic institutions

	1988	1989	1990	1991	1992
S.W.I.F.T. users	45	44	42	40	40
<i>of which:</i>					
<i>members</i>	39	38	36	35	34
<i>sub-members</i>	6	6	6	5	6
<i>participants</i>	-	-	-	-	-
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
<i>members</i>	2,581	1,697	1,812	1,963	2,074
<i>sub-members</i>	1,228	1,315	1,469	1,607	1,738
<i>participants</i>	27	37	63	78	91

Table 15
S.W.I.F.T. message flows to/from domestic users

	1988	1989	1990	1991	1992
Total messages sent	4,832,751	5,568,144	5,883,857	5,931,152	6,263,619
<i>of which:</i>					
<i>category I</i>	<i>n.a.</i>	1,143,140	1,156,766	1,297,143	1,592,838
<i>category II</i>	<i>n.a.</i>	2,261,780	2,381,197	2,192,747	2,228,596
<i>sent/received to/from domestic users</i>	870,997	971,237	1,021,310	850,211	900,143
Total messages received:	4,485,227	4,898,877	5,056,348	5,010,850	5,397,400
<i>of which:</i>					
<i>category I</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,693,453
<i>category II</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,097,959
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,902

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

Table 1
Basic statistical data

	1988**	1989**	1990	1991	1992
Population*: (000s)	61,449	62,063	79,400	80,000	81,600
Gross domestic product** (billions)	2,096.0	2,224.4	2,417.8	2,612.6	2,772.0
Exchange rate vis-à-vis ECU*	2.0744	2.0702	2.0521	2.0508	2.0203

* Average for the year

** Old Länder only

Table 2
Settlement media used by non-banks
(end of year)

	DEM billions				
	1988*	1989*	1990	1991	1992
Notes and coins	142.6	146.9	158.6	171.8	200.5
Transferable deposits	287.9	310.6	444.9	445.0	469.5
<i>of which held by:</i>					
<i>households</i>	171.2	176.3	240.2	253.7	288.5
<i>corporate sector</i>	95.9	107.3	151.0	149.2	152.1
<i>other</i>	20.8	27.0	53.7	42.1	28.9
Narrow money supply (M ₁)	427.0	450.7	584.3	604.0	669.6

* Old Länder only

Table 3
Settlement media used by deposit-taking institutions
(end of year)

	DEM billions				
	1988*	1989*	1990	1991	1992
Required reserves held at central bank	56.5	58.1	68.9	73.6	85.2
Free reserves held at central bank	0.6	0.8	2.0	1.4	1.2
Transferable deposits at other institutions	101.4	110.4	256.4	226.9	301.2

* Old Länder only

Table 4
Banknotes and coins
(total value, end of year)

	DEM billions				
	1988*	1989*	1990	1991	1992
Total banknotes issued	143.9	150.6	166.9	181.3	213.4
<i>of which</i>					
DEM 1000	39.7	39.5	40.7	46.9	64.3
DEM 500	19.1	19.6	21.1	21.5	24.0
DEM 200	-	-	6.6	9.6	11.5
DEM 100	62.7	66.4	69.6	73.8	82.1
DEM 50	13.5	15.0	17.9	18.3	19.4
DEM 20	5.4	6.0	6.7	6.7	7.4
DEM 10	3.3	3.8	4.0	4.2	4.4
DEM 5	0.2	0.3	0.3	0.3	0.3
Coins issued	10.9	11.6	12.6	13.3	13.9
Notes and coins held by credit institutions	12.2	15.2	21.1	22.8	26.8
Notes and coins in circulation outside credit institutions	142.6	146.9	158.6	171.8	200.5

* Old Länder only

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts (000s) (e)	Value of accounts (DEM billions)
Central bank (1)	10	190	37	1.2
Commercial banks (2)	410	8,156	15,700	154.1
Savings banks	730	20,739	36,400	187.1
Cooperative and rural banks	2,915	20,790	20,300	101.8
Postbank	1	22,001	5,000	25.3
TOTAL	4,066	71,876	77,437	469.5
Branches of foreign banks	56	95	n.a.	n.a.
<i>of which EC based</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

- 1 The Bundesbank as a legal entity comprises the Central Office (in Frankfurt am Main) and 9 Land Central Banks as well as 190 branches.
- 2 Including mortgage banks, instalments sales financing institutions, banks with special functions and building and loan associations.

Table 6
Cash dispensers, ATMs and EFT POS terminals (e)

	1988*	1989*	1990	1991	1992
Cash dispensers and ATMs					
Number of networks	4	4	4	4	4
Number of machines	7,500	9,300	11,300	13,750	19,000
Volume of transactions	n.a.	n.a.	n.a.	n.a.	n.a.
Value of transactions	n.a.	n.a.	n.a.	n.a.	n.a.
EFT POS					
Number of networks	5	5	11	18	18
Number of points of sale	8,669	10,928	23,152	34,673	51,806
Volume of transactions (<i>millions</i>)	0.6	0.8	3.5	20.2	28.0
Value of transactions (<i>billions</i>)	0.1	0.1	0.2	1.8	1.9

* Old Länder only

Table 7
Number of payment cards in circulation*
(end of year)

	1988**	1989**	1990	1991	1992
Cards with a cash function	n.a.	n.a.	n.a.	n.a.	n.a.
Cards with a debit/credit function	23,455	25,916	28,726	33,528	39,272
<i>of which:</i>					
<i>cards with a debit function (1)</i>	21,131	22,281	23,729	27,424	31,863
<i>cards with a credit function</i>	2,324	3,635	4,997	6,104	7,409
Cards with a cheque guarantee function	21,131	22,281	23,729	27,424	31,863
Retailer cards	n.a.	n.a.	n.a.	1,500	3,000

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures. Partly estimated.

** Old Länder only.

(1) Eurocheque cards, eligible for cash and debit functions, if they are issued with a Personal Identification Number (PIN).

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions***

	millions				
	1988**	1989**	1990	1991	1992
Maschinell-optische Beleglesung (MAOBE) (1)	624.1	635.3	677.5	667.5	588.5
Cheques and direct debits	354.4	346.1	324.5	320.4	291.7
Credit transfers	269.7	289.2	353.0	347.1	296.8
Belegloser Datenträgeraustausch (2)	1,401.8	1,513.3	1,744.5	2,094.7	2,061.1
Truncated cheques and direct debits	1,210.3	1,306.2	1,475.7	1,698.1	1,616.6
Credit transfers	191.5	207.1	268.8	396.6	444.5
Direktverkehr (3)	3.3	4.0	5.4	5.7	3.1
Eiliger Zahlungsverkehr (EIL-ZV) (4)	0.9	1.4	2.4	3.0	2.6
<i>of which "by cable"</i>	<i>0.6</i>	<i>0.8</i>	<i>0.9</i>	<i>1.2</i>	<i>1.9</i>
Platzüberweisungsverkehr (5)	51.2	45.1	23.1	80.2	71.9
Konventionelle Abrechnung (6)	256.1	248.3	234.1	338.0	381.2
Cheques and other collection items	48.4	44.3	40.1	44.8	57.2
Credit transfers	207.7	204.0	194.3	293.2	324.0
Elektronische Abrechnung mit File- Transfer - EAF (7)	-	-	2.3	5.0	7.8

* This table does not include figures relating to IFTS which are not operated by Bundesbank.

** Old Länder only.

1 Machine-optical voucher reading procedure.

2 Paperless exchange of data media.

3 Direct traffic between branches of the Deutsche Bundesbank.

4 Electronic intercity credit transfers.

5 Express (paper-based) local credit transfer system.

6 Daily local clearing system.

7 Daily electronic clearing with file transfer.

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions***

	DEM billions				
	1988**	1989**	1990	1991	1992
Maschinell-optische Belegung (MAOBE) (1)	2,386.6	2,602.4	2,920.6	3,260.8	3,148.2
Cheques and direct debits	2,169.1	2,361.9	2,609.0	2,964.3	2,960.1
Credit transfers	217.5	240.5	311.6	296.5	188.1
Belegloser Datenträgeraustausch (2)	774.0	879.4	1,134.2	1,462.6	1,697.9
Truncated cheques and direct debits	493.1	570.1	718.7	843.9	872.1
Credit transfers	280.9	309.3	415.5	618.7	825.8
Direktverkehr (3)	6,495.9	7,683.4	9,469.1	11,764.6	13,977.1
Eiliger Zahlungsverkehr (EIL-ZV) (4)	4,391.6	6,617.0	8,354.2	10,792.2	13,611.0
<i>of which "by cable"</i>	<i>3,988.6</i>	<i>5,721.0</i>	<i>7,208.6</i>	<i>9,705.8</i>	<i>13,349.3</i>
Platzüberweisungsverkehr (5)	6,732.1	7,057.8	8,405.2	8,119.2	8,430.2
Konventionelle Abrechnung (6)	75,467.6	104,137.9	86,180.2	63,856.3	55,377.1
Cheques and other collection items	678.6	674.0	698.9	735.7	818.9
Credit transfers	74,789.0	103,463.9	85,481.3	63,120.6	54,558.2
Elektronische Abrechnung mit File- Transfer - EAF (7)	-	-	24,993.1	54,936.2	83,023.1

Footnotes: see Table 8

Germany

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

	millions				
	1988*	1989*	1990	1991	1992
Deutscher Kassenverein					
Delivery versus payment	n.a.	11.9	16.2	16.4	16.5
without countervalue	n.a.	8.0	5.9	4.1	6.1
Total	n.a.	19.9	22.1	20.5	22.6

* Old Länder only

Table 11

**Transfer instructions handled by securities settlement systems:
value of transactions**

	DEM billions				
	1988*	1989*	1990	1991	1992
Deutscher Kassenverein					
Delivery versus payment	n.a.	2,789.5	3,078.3	2,852.9	4,663.5

* Old Länder only

Table 12
Indicators of use of various cashless payment instruments:
volume of transactions

	millions				
	1988	1989	1990	1991	1992
Cheques issued	637.0	661.0	784.0	880.0	902.0
<i>of which truncated</i>	(366.9)	(413.0)	(573.0)	(643.0)	(658.0)
Payments by debit and credit cards	46.6	82.6	121.7	170.3	214.0
Paper-based credit transfers	1,646.4	1,684.4	1,835.4	2,012.3	1,991.2
<i>customer initiated</i>	1,624.0	1,659.0	1,812.0	1,989.0	1,971.0
<i>interbank/large-value (1)</i>	22.4	25.4	23.4	23.3	20.2
Paperless credit transfers	1,795.0	1,872.1	2,264.5	2,697.3	3,092.4
<i>customer initiated</i>	1,794.0	1,871.0	2,261.0	2,691.0	3,083.0
<i>interbank/large-value (1)</i>	1.0	1.1	3.5	6.3	9.4
Direct debits (2)	2,380.0	2,589.0	2,939.5	3,419.8	4,016.0
Total	6,505.0	6,889.1	7,945.1	9,179.7	10,215.6

* Old Länder only

1 Only interbank payments via Bundesbank in Konventionelle Abrechnung in Frankfurt, Elektronische Abrechnung mit Filetransfer, Eiliger Zahlungsverkehr and Platzüberweisungsverkehr.

2 Including cash dispenser/ATM withdrawals made with eurocheque cards at banks other than that issuing the card.

Table 13
Indicators of use of various cashless payment instruments:
value of transactions

	DEM billions				
	1988*	1989*	1990	1991	1992
Cheques issued	3,786.0	4,644.0	3,997.0	4,443.0	4,583.0
<i>of which truncated</i>	(102.0)	(123.0)	(228.0)	(254.0)	(261.0)
Payments by debit and credit cards	11.1	15.9	22.6	30.0	35.7
Paper-based credit transfers	89,675.7	120,675.4	105,029.3	84,343.0	76,837.7
<i>customer initiated</i>	11,256.0	13,287.0	14,548.0	16,273.0	19,303.0
<i>interbank/large-value (1)</i>	78,419.7	107,388.4	90,481.3	68,070.0	57,534.7
Paperless credit transfers	8,692.0	9,766.0	35,646.0	68,349.0	103,156.0
<i>customer initiated</i>	2,992.0	3,532.0	4,103.0	5,424.0	9,508.0
<i>interbank/large-value (1)</i>	5,700.0	6,234.0	31,543.0	62,925.0	93,648.0
Direct debits (2)	1,673.0	2,025.0	2,573.8	2,902.2	3,906.1
Total	103,837.8	137,126.3	147,268.7	160,067.2	188,518.5

Footnotes: See table 12

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1988	1989	1990	1991	1992
S.W.I.F.T. users	193	200	218	232	238
<i>of which:</i>					
<i>members</i>	133	135	147	150	152
<i>sub-members</i>	59	64	70	81	84
<i>participants</i>	1	1	1	1	2
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
<i>members</i>	1,581	1,697	1,812	1,963	2,074
<i>sub-members</i>	1,228	1,315	1,469	1,607	1,738
<i>participants</i>	27	37	63	78	91

Table 15

S.W.I.F.T. message flows to/from domestic users

	1988	1989	1990	1991	1992
Total messages sent	22,806,525	25,857,693	28,299,791	30,963,599	32,585,476
<i>of which:</i>					
<i>category I</i>	8,427,480	9,306,430	10,261,651	11,027,035	11,997,937
<i>category II</i>	5,331,498	5,864,269	5,180,512	6,563,223	6,747,897
<i>sent/received to/from domestic users</i>	3,890,976	4,409,370	4,768,910	5,158,337	5,527,524
Total messages received:	31,628,862	35,996,386	38,740,113	42,081,217	44,887,628
<i>of which:</i>					
<i>category I</i>	-	-	-	-	14,832,041
<i>category II</i>	-	-	-	-	18,220,015
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,902

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

Table 1
Basic statistical data

	1988	1989	1990	1991	1992
Population* (000s)	10,005	10,033	10,140	10,269	10,351
Gross domestic product (billions)	7,526	8,778	10,569	12,863	14,933
Exchange rate vis-à-vis ECU*	167.58	178.84	201.41	225.22	247.03

* Average for the year

Table 2
Settlement media used by non-banks
(end of year)

	GRD billions				
	1988	1989	1990	1991	1992
Notes and coins	735.5	969.3	1,162.0	1,255.5	1,410.0
Transferable deposits (1)	466.8	548.5	718.8	849.7	947.0
<i>of which held by:</i>					
<i>households</i>	29.8	41.1	79.3	97.3	115.8
<i>corporate sector</i>	207.9	254.3	342.2	390.1	442.4
<i>other (2)</i>	229.2	252.8	297.3	362.3	388.8
Narrow money supply (M ₁)	1,202.3	1,517.8	1,880.8	2,105.2	2,357.0

(1) Total sight deposit.

(2) Including non-bank financial institutions, Public entities and Public enterprises.

Table 3
Settlement media used by deposit-taking institutions
(end of year)

	GRD billions				
	1988	1989	1990	1991	1992
Required reserves held at central bank (1)	428.2	330.3	442.9	472.1	592.6
<i>of which can be used for settlement</i>	0	0	0	0	0
Free reserves held at central bank (2)	25.5	59.0	37.1	91.1	103.1
Transferable deposits at other institutions	n.a.	n.a.	n.a.	n.a.	n.a.

(1) Primary and secondary reserve requirements.

(2) Mainly non-compulsory reserves of specialised credit institutions.

Table 4
Banknotes and coins
(total value, end of year)

	GRD millions				
	1988	1989	1990	1991	1992
Total banknotes issued	791,514	1,028,212	1,248,990	1,348,942	1,501,852
<i>of which:</i>					
GRD 5,000	556,840	804,873	1,047,918	1,182,139	1,342,652
GRD 1,000	230,613	189,747	165,410	129,188	118,750
GRD 500	14,858	15,970	16,801	18,023	19,299
GRD 100	13,836	15,548	16,947	17,731	18,454
GRD 50	2,367	2,074	1,914	1,861	2,717
Coins issued	14,455	17,354	20,285	22,804	29,141
Notes and coins held by credit institutions	70,497	76,248	107,234	116,469	120,902
Notes and coins in circulation outside credit institutions	735,472	969,318	1,162,041	1,255,277	1,410,091

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts (in thousands)	Value of accounts (GRD billions)
Central bank	1	94 (1)	5.3	2,027
Commercial banks	39	1,233	849.8	499.9
Savings banks	1	114	-	-
Cooperative and rural banks (2)	1	214	33.6	37.6
Specialised Credit Institutions	7	100	7.0	2.3
TOTAL	49	1,782	895.7	2,566.8
Branches of foreign banks	19	72	21.4	60.4
<i>of which EC based</i>	<i>11</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(1) 27 full branches and 67 agencies of Bank of Greece (which only offer payment services).

(2) Agricultural Bank of Greece.

Table 6
Cash dispensers, ATMs and EFT POS terminals
(end of year)

	1988	1989	1990	1991	1992
Cash dispensers and ATMs					
Number of networks	n.a.	n.a.	n.a.	7	12
Number of machines	n.a.	n.a.	326	472	704
Volume of transactions	n.a.	n.a.	n.a.	n.a.	n.a.
Value of transactions	n.a.	n.a.	n.a.	n.a.	n.a.
EFT POS					
Number of networks	n.a.	n.a.	n.a.	1	2
Number of points of sale	n.a.	n.a.	n.a.	1500	2500
Volume of transactions	n.a.	n.a.	n.a.	n.a.	n.a.
Value of transactions	n.a.	n.a.	n.a.	n.a.	n.a.

Table 7
Number of payment cards in circulation*
(end of year)

	1988	1989	1990	1991	1992
					000s
Cards with a cash function	567	687	744	815	892
Cards with a debit/credit function	567	687	744	815	892
<i>of which:</i>					
<i>cards with a debit function</i>	-	-	-	-	-
<i>cards with a credit function</i>	-	-	-	-	-
Cards with a cheque guarantee function	n.a.	n.a.	n.a.	n.a.	n.a.
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions**

	000s				
	1988	1989	1990	1991	1992
Athens Clearing Office					
Cheques in drs & Exchange	10,431	11,393	12,215	12,039	12,829
Other (Money Market Loan)	23	26	28	38	52

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions**

	GRD billions				
	1988	1989	1990	1991	1992
Athens Clearing Office					
Cheques in drs & Exchange	8,836.8	10,837.4	14,454.0	17,796.1	23,011.2
Other (Money Market Loan)	8,255.5	13,964.3	17,998.1	25,957.0	46,933.9

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

	000s				
	1988	1989	1990	1991	1992
Athens Stock Exchange					
Government securities	733	242	443	239	119
Equity transactions	15,813	28,672	106,285	89,997	25,697
Other	247	163	49	1,858	462

Table 11

**Transfer instructions handled by securities settlement systems:
value of transactions**

	1988	1989	1990	1991	1992
Athens Stock Exchange					
Government securities	3,239	4,647	58,204	48,896	20,197
Equity transactions	44,380	89,064	608,688	437,550	307,360
Other	1,518	886	568	13,215	5,181

Table 12

**Indicators of use of various cashless payment instruments:
volume of transactions**

	1988	1989	1990	1991	1992
Cheques issued	n.a.	n.a.	n.a.	n.a.	n.a.
Payments by debit and credit cards	n.a.	n.a.	n.a.	n.a.	n.a.
Paper-based credit transfers	n.a.	n.a.	n.a.	n.a.	n.a.
<i>customer initiated</i>	n.a.	n.a.	n.a.	n.a.	n.a.
<i>interbank/large-value</i>	n.a.	n.a.	n.a.	n.a.	n.a.
Paperless credit transfers	n.a.	n.a.	n.a.	n.a.	n.a.
<i>customer initiated</i>	n.a.	n.a.	n.a.	n.a.	n.a.
<i>interbank/large-value</i>	n.a.	n.a.	n.a.	n.a.	n.a.
Direct debits	n.a.	n.a.	n.a.	n.a.	n.a.
Others	n.a.	n.a.	n.a.	n.a.	n.a.
Total	n.a.	n.a.	n.a.	n.a.	n.a.

Table 13

**Indicators of use of various cashless payment instruments:
value of transactions**

	1988	1989	1990	1991	1992
Cheques issued	n.a.	n.a.	n.a.	n.a.	n.a.
Payments by debit and credit cards	n.a.	n.a.	n.a.	n.a.	n.a.
Paper-based credit transfers	n.a.	n.a.	n.a.	n.a.	n.a.
<i>customer initiated</i>	n.a.	n.a.	n.a.	n.a.	n.a.
<i>interbank/large-value</i>	n.a.	n.a.	n.a.	n.a.	n.a.
Paperless credit transfers	n.a.	n.a.	n.a.	n.a.	n.a.
<i>customer initiated</i>	n.a.	n.a.	n.a.	n.a.	n.a.
<i>interbank/large-value</i>	n.a.	n.a.	n.a.	n.a.	n.a.
Direct debits	n.a.	n.a.	n.a.	n.a.	n.a.
Others	n.a.	n.a.	n.a.	n.a.	n.a.
Total	n.a.	n.a.	n.a.	n.a.	n.a.

Table 14
Participation in S.W.I.F.T. by domestic institutions

	1988	1989	1990	1991	1992
S.W.I.F.T. users	23	26	30	35	36
<i>of which:</i>					
<i>members</i>	10	11	14	18	18
<i>sub-members</i>	13	15	16	17	18
<i>participants</i>	-	-	-	-	-
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
<i>members</i>	1,581	1,697	1,812	1,963	2,074
<i>sub-members</i>	1,228	1,315	1,469	1,607	1,738
<i>participants</i>	27	37	63	78	91

Table 15
S.W.I.F.T. message flows to/from domestic users

	1988	1989	1990	1991	1992
Total messages sent	956,942	1,096,466	1,255,730	1,456,604	1,679,609
<i>of which:</i>					
<i>category I</i>	<i>n.a.</i>	382,996	420,167	505,296	577,953
<i>category II</i>	<i>n.a.</i>	414,574	489,107	519,134	592,398
<i>sent/received to/from domestic users</i>	63,155	70,707	130,942	195,462	232,629
Total messages received:	1,127,750	1,258,624	1,431,237	1,658,502	1,909,987
<i>of which:</i>					
<i>category I</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	556,507
<i>category II</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	229,347
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,902

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

Table 1
Basic statistical data

	1988	1989	1990	1991	1992
Population* (000s)	38,809	38,888	38,959	39,025	39,103
Gross domestic product (billions)	40,159	45,006	50,125	54,791	58,677
Exchange rate vis-à-vis ECU*	137.60	130.41	129.41	128.47	132.53

* Average for the year

Table 2
Settlement media used by non-banks
(end of year)

	ESP billions				
	1988	1989	1990	1991	1992
Notes and coins	n.a.	3,835	4,533	5,607	6,025
Transferable deposits	n.a.	15,776	18,504	20,190	19,666
Narrow money supply (M ₁)	n.a.	19,611	23,037	25,797	25,691
Deposits in foreign currencies	n.a.	38	127	201	295

* Including non-bank financial institutions.

Table 3
Settlement media used by deposit-taking institutions
(end of year)

	ESP billions				
	1988	1989	1990	1991	1992
Required reserves held at central bank	n.a.	5,080	1,525	1,719	1,145
<i>of which can be used for settlement</i>	n.a.	5,080	1,525	1,719	1,145
Free reserves held at central bank	n.a.	8	13	24	11
Transferable deposits at other institutions	n.a.	11,325	12,135	14,523	21,133

Table 4
Banknotes and coins
(total value, end of year)

	ESP billions				
	1988	1989	1990	1991	1992
Total banknotes issued	n.a.	4,003	4,717	5,791	6,210
<i>of which</i>					
ESP 10,000	n.a.	1,024	1,427	2,282	2,756
ESP 5,000	n.a.	2,451	2,747	2,949	2,907
ESP 2,000	n.a.	106	139	197	227
ESP 1,000	n.a.	403	390	351	313
Other	n.a.	18	13	12	7
Coins issued	n.a.	250	265	281	297
Notes and coins held by credit institutions	n.a.	418	449	464	482
Notes and coins in circulation outside credit institutions	n.a.	3,835	4,533	5,607	6,024

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts (in thousands)	Value of accounts (ESP billions)
Central bank	1	52	-	-
Commercial banks	156	17,993	28,842	10,245
Savings banks	55	14,129	39,457	8,591
Cooperative and rural banks	102	2,989	3,929	573
Post office	-	-	-	-
TOTAL	314	35,163	72,228	19,409
Branches of foreign banks	57	n.a.	n.a.	n.a.
<i>of which EC based</i>	29	n.a.	n.a.	n.a.

Table 6
Cash dispensers, ATMs and EFT POS terminals
(end of year)

	1988	1989	1990	1991	1992
Cash dispensers and ATMs					
Number of networks		3	3	3	3
Number of machines		11,260	14,000	17,210	19,704
Volume of transactions (millions)		279	355	374	398
Value of transactions (billions)		3,196	4,205	4,422	5,071
EFT POS					
Number of networks		3	3	3	3
Number of machines		217,000	311,900	217,553	261,949
Volume of transactions (millions)		71	79	98	141
Value of transactions (billions)		701	870	994	1,244

Table 7
Number of payment cards in circulation*
(end of year)

	1988	1989	1990	1991	1992
					000s
Cards with a cash function	n.a.	n.a.	23,600	29,053	32,056
Cards with a debit/credit function	n.a.	n.a.	23,600	29,053	32,056
<i>of which:</i>					
<i>cards with a debit function</i>	n.a.	n.a.	n.a.	29,053	32,056
<i>cards with a credit function</i>	n.a.	n.a.	n.a.	9,243	9,869
Cards with a cheque guarantee function	n.a.	n.a.	-	-	-
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions**

	millions				
	1988	1989	1990	1991	1992
Clearing house	n.a.	213.4	197.8	169.4	144.1
cheques	n.a.	88.6	56.1	25.4	19.1
paper-based credit transfers	n.a.	1.5	-	-	-
Direct debits	n.a.	123.3	141.7	144.0	125.0
SNCE	n.a.	197.4	257.6	303.2	344.5
Computer link					
<i>Cheques</i>	<i>n.a.</i>	<i>58.0</i>	<i>101.0</i>	<i>119.8</i>	<i>126.6</i>
<i>Credit transfers</i>	<i>n.a.</i>	-	-	-	28.7
Magnetic tape					
<i>Cheques</i>	<i>n.a.</i>	<i>68.5</i>	<i>52.9</i>	<i>43.8</i>	<i>33.3</i>
<i>Credit transfers</i>	<i>n.a.</i>	<i>34.0</i>	<i>54.0</i>	<i>58.3</i>	<i>32.8</i>
<i>Direct debit</i>	<i>n.a.</i>	<i>28.7</i>	<i>35.1</i>	<i>58.8</i>	<i>98.4</i>
<i>Petrol cheques</i>	<i>n.a.</i>	<i>8.2</i>	<i>14.6</i>	<i>22.5</i>	<i>24.7</i>
STMD	n.a.	0.44	0.55	0.60	0.75
Interbank loans market	n.a.	0.21	0.22	0.20	0.24
Book-entry debt market	n.a.	0.21	0.31	0.38	0.48
Interbank transfers	n.a.	0.02	0.02	0.02	0.03

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions**

	ESP billions				
	1988	1989	1990	1991	1992
Clearing house	n.a.	62,500	60,300	37,697	31,666
cheques	n.a.	58,500	56,000	32,718	26,670
paper-based credit transfers	n.a.	400	-	-	-
Direct debits	n.a.	3,600	4,300	4,979	4,996
SNCE	n.a.	30,035	42,760	68,939	76,474
Computer link					
<i>Cheques</i>	<i>n.a.</i>	<i>9,717</i>	<i>17,975</i>	<i>36,469</i>	<i>43,175</i>
<i>Credit transfers</i>	<i>n.a.</i>	-	-	-	6,187
Magnetic tape					
<i>Cheques</i>	<i>n.a.</i>	<i>12,800</i>	<i>11,800</i>	<i>15,604</i>	<i>12,571</i>
<i>Credit transfers</i>	<i>n.a.</i>	<i>7,200</i>	<i>12,300</i>	<i>15,498</i>	<i>11,947</i>
<i>Direct debit</i>	<i>n.a.</i>	<i>300</i>	<i>650</i>	<i>1,311</i>	<i>2,527</i>
<i>Petrol cheques</i>	<i>n.a.</i>	<i>18</i>	<i>35</i>	<i>57</i>	<i>67</i>
STMD	n.a.	671,000	907,000	1,447,960	1,538,977
Interbank loans market	n.a.	478,000	535,000	652,457	649,980
Book-entry debt market	n.a.	179,000	357,000	773,584	862,924
Interbank transfers	n.a.	14,000	15,000	21,919	26,073

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

	millions				
	1988	1989	1990	1991	1992
Book entry Public Debt System	n.a.	8.7	10.5	9.9	7.8
Stock Exchange	n.a.	n.a.	n.a.	n.a.	n.a.
<i>of which:</i>					
<i>Equity transactions</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Other (bonds)</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>AIAF market*</i>	-	-	-	<i>n.a.</i>	<i>n.a.</i>
<i>of which</i>					
<i>Commercial Paper</i>	-	-	-	<i>n.a.</i>	<i>n.a.</i>
<i>Domestic bonds</i>	-	-	-	<i>n.a.</i>	<i>n.a.</i>
<i>Foreign bonds</i>	-	-	-	<i>n.a.</i>	<i>n.a.</i>

* AIAF is the Association of Financial Assets Intermediaries

Table 11

**Transfer instructions handled by securities settlement systems:
value of transactions**

	ESP billions				
	1988	1989	1990	1991	1992
Book entry Public Debt System	n.a.	528,350	653,482	814,930	969,784
Stock Exchange	n.a.	5,028	5,043	5,364	5,668
<i>of which:</i>	<i>n.a.</i>				
<i>Equity transactions</i>	<i>n.a.</i>	<i>4,678</i>	<i>4,456</i>	<i>4,738</i>	<i>4,457</i>
<i>Other (bonds)</i>	<i>n.a.</i>	<i>350</i>	<i>587</i>	<i>626</i>	<i>1,211</i>
<i>AIAF market*</i>	-	-	-	<i>757</i>	<i>890</i>
<i>of which</i>				<i>542</i>	<i>397</i>
<i>Commercial Paper</i>	-	-	-	<i>20</i>	<i>282</i>
<i>Domestic bonds</i>	-	-	-	<i>195</i>	<i>211</i>
<i>Foreign bonds</i>	-	-	-		

* AIAF is the Association of Financial Assets Intermediaries

Table 12

**Indicators of use of various cashless payment instruments:
volume of transactions (1)**

	millions				
	1988	1989	1990	1991	1992
Cheques issued	?	263	270	252	241
Payments by debit and credit cards	?	71	79	98.3	141
Paper-based credit transfers	?	1.5	0	0	0
<i>customer initiated</i>	?	1.5	0	0	0
<i>interbank/large-value</i>	?	0	0	0	0
Paperless credit transfers	?	37.4	58.5	63.2	66.5
<i>customer initiated</i>	?	37.0	58.0	62.6	65.8
<i>interbank/large-value</i>	?	0.4	0.5	0.6	0.7
Direct debits	?	452	501	575.5	634
Total	?	824.9	908.5	989.0	1082.5

- (1) Includes funds transfers from and to accounts held under the same name; excludes interest and fee payments between credit institutions and their customers.

Table 13

**Indicators of use of various cashless payment instruments:
value of transactions**

	ESP billions				
	1988	1989	1990	1991	1992
Cheques issued	?	90,035	95,810	94,684	92,043
Payments by debit and credit cards	?	701	870	994	1,244
Paper-based credit transfers	?	400	0	0	0
<i>customer initiated</i>	?	400	0	0	0
<i>interbank/large-value</i>	?	0	0	0	0
Paperless credit transfers	?	678,800	920,300	1,464,713	1,558,562
<i>customer initiated</i>	?	7,800	13,300	16,753	19,585
<i>interbank/large-value</i>	?	671,000	907,000	1,447,960	1,538,977
Direct debits	?	13,900	16,950	21,537	25,729
Total	?	783,836	1,033,930	1,581,928	1,677,578

Footnote: see table 12

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1988	1989	1990	1991	1992
S.W.I.F.T. users	76	92	102	111	117
<i>of which:</i>					
<i>members</i>	44	52	53	56	52
<i>sub-members</i>	32	40	49	55	65
<i>participants</i>	0	0	0	0	-
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
<i>members</i>	1,581	1,697	1,812	1,963	2,074
<i>sub-members</i>	1,228	1,315	1,469	1,607	1,738
<i>participants</i>	27	37	63	78	91

Table 15

S.W.I.F.T. message flows to/from domestic users

	1988	1989	1990	1991	1992
Total messages sent	3,652,524	4,374,605	5,467,526	7,348,168	10,086,995
<i>of which:</i>					
<i>category I</i>	<i>n.a.</i>	968,538	1,205,043	1,708,449	2,032,529
<i>category II</i>	<i>n.a.</i>	1,186,393	1,472,952	1,852,473	3,463,874
<i>sent/received to/from domestic users</i>	335,356	404,079	496,681	1,110,773	2,518,087
Total messages received:	4,939,381	5,650,155	6,347,905	7,782,839	10,019,114
<i>of which:</i>					
<i>category I</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	2,321,360
<i>category II</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,664,058
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,962

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

Table 1
Basic statistical data

	1988	1989	1990	1991	1992
Population* (000s)	56,118	56,423	56,735	57,055	57,372
Gross domestic product (billions)	5,735.0	6,159.7	6,505.5	6,746.9	6,997.6
Exchange rate vis-à-vis ECU*	7.0364	7.0239	6.9141	6.9733	6.8484

* Average for the year

Table 2
Settlement media used by non-banks
(end of year)

FRF billions

	1988	1989	1990	1991	1992
Notes and coins	235.5	246.5	255.5	254.4	255.5
Transferable deposits(1)	1273.0	1378.6	1433.0	1354.7	1351.6
<i>of which held by:</i>					
<i>households</i>	701.1	758.4	792.9	774.2	793.2
<i>corporate sector</i>	295.7	330.9	346.3	308.6	303.3
<i>other</i>	276.2	289.3	303.8	271.9	255.1
Narrow money supply (M ₁)	1508.6	1625.0	1688.5	1609.2	1607.1
<i>Memorandum item</i>					
<i>Transferable deposits in</i>					
<i>foreign currency</i>	23.8	24.8	25.5	24.8	34.4

(1) Excluding deposits in foreign currencies

Table 3
Settlement media used by deposit-taking institutions
(end of year)

FRF billions

	1988	1989	1990	1991	1992
Required reserves held at central bank(1)	68.54	81.66	67.30	52.15	18.90
<i>of which can be used for settlement</i>	68.54	81.66	67.30	52.15	18.90
Free reserves held at central bank	0.54	0.77	1.30	1.26	0.52
Transferable deposits at other institutions	2666.4	2983.2	2936.2	2881.4	2515.6

(1) Monthly average

Table 4
Banknotes and coins
(total value, end of year)

	FRF billions				
	1988	1989	1990	1991	1992
Total banknotes issued	240.7	252.5	263.2	263.9	265.3
<i>of which (1):</i>					
FRF 500	119.9	127.4	132.8	134.1	134.2
FRF 200	55.9	61.5	67.6	70.3	73.4
FRF 100	57.8	56.3	55.3	52.4	50.6
FRF 50	5.6	5.8	5.9	5.9	6.0
FRF 20	1.1	1.1	1.2	1.23	1.1
FRF 10	0.4	0.4	0.4	-	-
Banknotes issued in overseas territories (to be subtracted)	8.4	9.5	10.6	11.5	12.4
Coins issued (2)	14.9	16.2	17.1	17.3	18.2
Notes and coins held by credit institutions (2)	11.7	12.8	14.3	15.3	15.6
Notes and coins in circulation outside credit institutions (2)	235.5	246.5	255.5	254.4	255.5

(1) Including banknotes issued in overseas territories

(2) Excluding overseas territories

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts (000s)	Value of accounts (FRF billions)
Central bank	1	212	83	3.1
Commercial banks	419	10,366	19,993	532.9
Savings banks(1)	37	4,297	8,021	134.4
Cooperative and rural banks(2)	177	10,816	23,658	376.1
Post office	1	16,855	9,388	167
Treasury	1	3,955	886	14.0
TOTAL	637	46,501	62,029	1,227.5
Branches of foreign banks	80	n.a.	n.a.	n.a.
<i>of which EC based</i>	n.a.	n.a.	n.a.	n.a.

(1) Including Caisses des dépôts et consignations

(2) Including Caisses de Credit municipal

Table 6
Cash dispensers, ATMs and EFT POS terminals
(end of year)

	1988	1989	1990	1991	1992
Cash dispensers and ATMs					
Number of networks	1	1	1	1	1
Number of machines	11,457	13,031	14,426	16,134	17,432
Volume of transactions (000s)	445,479	495,289	547,720	614,052	670,152
Value of transactions (millions)	199,865	228,383	242,822	288,852	306,994
EFT POS					
Number of networks	1	1	1	1	1
Number of points of sale (e)(1)	120,000	160,000	180,000	203,000	320,000
Volume of transactions (e) (millions)	416	618	933	1,051	1,300
Value of transactions (e) (millions)	202,398	259,357	303,515	246,650	430,000

(1) Number of machines

Table 7
Number of payment cards in circulation*
(end of year)

	1988	1989	1990	1991	1992
	000s				
Cards with a cash function	17,342	18,691	19,955	20,629	21,072
Cards with a debit/credit function .	17,258	18,597	19,393	19,742	20,892
of which:					
cards with a debit function	17,258	18,597	19,393	19,743	20,892
cards with a credit function	152	241	276	345	453
Cards with a cheque guarantee function	150	99	86	82	192
Retailer cards (e)	18,000	18,000	20,000	20,000	20,000

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions**

	millions				
	1988	1989	1990	1991	1992
Clearing houses	3,546.1	3,544.1	3,589.4	3,625.9	3,652.0
cheques	3,486.1	3,494.3	3,547.9	3,597.0	3,633.4
credit transfers	9.3	8.7	7.2	5.6	3.8
bills of exchange	41.0	32.2	25.8	17.8	9.5
avals de trésorerie	1.0	0.9	0.6	0.6	0.4
large-value credit transfers	8.7	8.0	7.9	4.9	4.9
CREIC(1)	123.5	178.8	201.6	214.8	230.8
Ordinateur de compensation	1,437.3	1,591.2	1,722.7	1,874.7	1,811.0
credit transfers	646.8	697.6	742.5	802.2	781.4
paperless bill of exchange	99.1	113.3	124.1	126.8	124.3
Direct debits	456.8	508.8	560.2	620.1	588.1
Titres Interbancaires de Paiement	5.0	7.7	9.0	17.0	41.2
ATM withdrawals	210.5	236.2	256.2	269.8	229.2
Card payments	19.1	27.7	30.7	38.8	46.8
Système Interbancaire de Télécompensation (SIT)	-	-	-	43.7	301.8
credit transfers	-	-	-	18.0	107.5
LCR and paperless bill of exchange	-	-	-	3.6	10.5
Direct debits	-	-	-	8.2	90.3
Titres Interbancaires de Paiement	-	-	-	0.2	2.5
ATM withdrawals	-	-	-	13.7	91.0
Cartes Bancaires	986.4	1,193.7	1,326.3	1,490.7	1,608.0
ATM withdrawals	170.1	190.8	189.7	215.1	220.3
Card payments	816.3	1,002.9	1,136.6	1,275.6	1,388.5
Banque de France	49.4	50.0	48.2	46.8	42.7
public treasury transfers	45.4	46.5	45.2	44.0	39.6
interbank credit transfers	0.9	0.8	0.5	0.4	0.9
large value credit transfers	2.5	2.0	1.7	1.5	1.3
telegraphic credit transfers	0.6	0.7	0.8	0.9	0.9
Sagittaire	1.4	1.8	2.5	2.9	3.3

(1) Centre Regionaux d'Images cheques (truncated cheques)

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions**

	FRF billions				
	1988	1989	1990	1991	1992
Clearing houses	115,038.2	116,558.4	128,357.4	120,023.5	128,371.3
cheques	9,699.9	10,436.5	11,357.1	11,634.9	11,582.0
credit transfers	925.9	1,044.7	1,150.6	1,228.3	1,275.5
bills of exchange	918.6	812.1	663.0	509.3	316.1
avals de trésorerie	73,126.8	72,068.5	80,861.0	71,354.0	73,179.0
large-value credit transfers	30,340.0	32,196.6	34,173.6	35,297.0	42,018.7
CREIC(1)	69.5	97.1	111.1	119.8	129.1
Ordinateur de compensation	4,745.2	5,604.4	6,398.5	7,178.6	7,661.6
credit transfers	2,015.4	2,294.2	2,639.4	3,104.3	3,458.6
paperless bill of exchange	1,983.1	2,446.1	2,776.4	2,969.3	3,065.5
Direct debits	644.3	740.6	850.1	595.7	991.2
Titres Interbancaires de Paiement	9.5	17.8	21.1	29.0	47.2
ATM withdrawals	90.8	100.6	106.8	107.9	88.7
Card payments	3.1	5.1	6.4	8.4	10.4
Système Interbancaire de Télécompensation (SIT)	-	-	-	98.8	234.9
credit transfers	-	-	-	43.8	103.8
LCR and paperless bill of exchange	-	-	-	39	23.9
Direct debits	-	-	-	9.8	69.0
Titres Interbancaires de Paiement	-	-	-	0.6	2.6
ATM withdrawals	-	-	-	5.5	35.6
Cartes Bancaires	328.7	411.8	468.5	539.1	571.0
ATM withdrawals	78.8	92.6	95.5	114.2	109.8
Card payments	249.9	319.1	373.0	424.9	461.2
Banque de France	31,080.6	31,401.1	37,054.1	40,378.3	42,547.8
public treasury transfers	613.6	655.9	746.7	691.8	467.8
interbank credit transfers	130.5	141.1	160.0	158.6	131.3
large value credit transfers	23,551.4	25,804.1	28,589.7	32,015.4	34,466.4
telegraphic credit transfers	6,455.1	6,800.4	7,557.7	7,512.2	7,482.3
Sagittaire	12,977	22,794	35,393	43,845	59,219

(1) Centre Regionaux d'Images cheques (truncated cheques)

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

000s

	1988	1989	1990	1991	1992
Saturne	82,566	98,373	102,374	109,837	126,904
<i>of which:</i>					
Treasury bills (1)	82,566	98,373	102,374	109,837	126,904
BMTN (2)	-	-	-	-	3,639
TCN (3)	n.a.	n.a.	n.a.	8,378	6,160
Relit (4)	-	-	-	-	n.a.
<i>of which:</i>					
Treasury bonds	-	-	-	-	n.a.
Shares	-	-	-	-	n.a.
Mutual funds	-	-	-	-	n.a.
Others	-	-	-	-	n.a.

- (1) Treasury securities with less than 7 years of initial maturity
 (2) "Bons à moyen terme négociables": Medium-term negotiable instruments (transferred through SATURNE for the first time in 1992).
 (3) "Titres à court terme négociables": Short term negotiable instruments
 (4) The Relit system began its operations in 1992.

Table 11

**Transfer instructions handled by securities settlement systems:
value of transactions**

FRF billions

	1988	1989	1990	1991	1992
Saturne	3,199.4	3,945.2	3,971.1	5,203.8	10,199.8
<i>of which:</i>					
Treasury bills (1)	-	-	-	-	174.8
BMTN (2)	n.a.	n.a.	n.a.	373.3	342.9
TCN (3)					
Relit (4)	-	-	-	-	26,000
<i>of which:</i>					
Treasury bonds	-	-	-	-	11,400
Shares	-	-	-	-	2,600
Mutual funds	-	-	-	-	8,200
Others	-	-	-	-	3,800

- (1) Treasury securities with less than 7 years of initial maturity
 (2) "Bons à moyen terme négociables": Medium-term negotiable instruments (transferred through SATURNE for the first time in 1992).
 (3) "Titres à court terme négociables": Short term negotiable instruments
 (4) The Relit system began its operations in 1992.

Table 12

**Indicators of use of various cashless payment instruments:
volume of transactions**

	millions				
Instruments	1988	1989	1990	1991	1992
Cheques issued	4,077.4	4,625.5	4,649.4	4,512.3	4,617.6
Payments by debit and credit cards	835.4	1,030.6	1,673.1	1,314.5	1,435.2
Paper-based credit transfers	117.8	111.9	97.5	87.9	76.1
<i>customer initiated</i>	<i>105.0</i>	<i>100.3</i>	<i>86.5</i>	<i>80.0</i>	<i>68.6</i>
<i>interbank/large-value</i>	<i>12.8</i>	<i>11.6</i>	<i>11.0</i>	<i>7.9</i>	<i>7.5</i>
Paperless credit transfers	1,097.8	1,159.5	1,243.7	1,302.7	1,404.0
<i>customer initiated</i>	<i>1,096.4</i>	<i>1,157.7</i>	<i>1,241.2</i>	<i>1,299.8</i>	<i>1,400.7</i>
<i>interbank/large-value</i>	<i>1.4</i>	<i>1.8</i>	<i>2.5</i>	<i>2.9</i>	<i>3.3</i>
Direct debits	696.4	767.3	844.9	853.7	979.6
Bills of Exchange	199.5	192.1	170.0	163.3	159.3
Total	7,024.3	7585.1	8,172.8	8,234.4	8,671.8

Table 13

**Indicators of use of various cashless payment instruments:
value of transactions**

	billions				
	1988	1989	1990	1991	1992
Cheques issued	15,822	17,060	18,440	16,103	15,735
Payments by debit and credit cards	235	324	379	433	472
Paper-based credit transfers	136,327	139,581	154,156	149,262	159,943
<i>customer initiated</i>	<i>2,534</i>	<i>2,711</i>	<i>2,974</i>	<i>3,083</i>	<i>2,797</i>
<i>interbank/large-value</i>	<i>133,793</i>	<i>136,870</i>	<i>151,182</i>	<i>146,179</i>	<i>157,146</i>
Paperless credit transfers	17,513	27,830	41,137	50,231	68,816
<i>customer initiated</i>	<i>4,536</i>	<i>5,036</i>	<i>5,744</i>	<i>6,386</i>	<i>9,597</i>
<i>interbank/large-value</i>	<i>12,977</i>	<i>22,794</i>	<i>35,393</i>	<i>43,845</i>	<i>59,219</i>
Direct debits	1,304	1,467	1,359	1,499	1,557
Bills of Exchange	3,545	3,800	3,826	3,813	3,690
Total	174,764	190,062	219,297	221,341	250,213

Note: Figures in tables 12 and 13 differ from those of the Red Book because the ATM withdrawals and the cheques used to withdraw cash are not included.

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1988	1989	1990	1991	1992
S.W.I.F.T. users	152	166	178	192	200
<i>of which:</i>					
<i>members</i>	93	100	103	105	109
<i>sub-members</i>	56	63	72	83	87
<i>participants</i>	3	3	3	4	4
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
members	1,581	1,697	1,812	1,963	2,074
sub-members	1,228	1,315	1,469	1,607	1,738
participants	27	37	63	78	91

Table 15

S.W.I.F.T. message flows to/from domestic users

	1988	1989	1990	1991	1992
Total messages sent	19,139,700	23,003,600	25,565,700	27,710,200	30,310,818
<i>of which:</i>					
<i>category I</i>	6,115,800	7,810,900	7,607,000	7,999,200	8,533,000
<i>category II</i>	5,662,100	7,089,100	8,493,700	9,603,300	10,450,100
<i>sent/received to/from domestic users</i>	4,231,000	5,758,800	7,233,600	8,226,500	9,386,200
Total messages received:	16,971,500	19,938,200	23,166,600	25,896,300	28,460,152
<i>of which:</i>					
<i>category I</i>	-	-	-	-	8,753,700
<i>category II</i>	-	-	-	-	10,472,800
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,902

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

Table 1
Basic statistical data

	1988	1989	1990	1991	1992
Population* (000s)	3,538	3,515	3,503	3,520	3,552
Gross domestic product (billions)	21.886	24.399	26.003	26.984	28.599
Exchange rate vis-à-vis ECU*	0.7757	0.7768	.7678	0.7678	0.7607

* Average for the year

Table 2
Settlement media used by non-banks
(end of year)

	IEP billions				
	1988	1989	1990	1991	1992
Notes and coins	n.a.	1,184.7	1,228.6	1,295.0	1,241.4
Transferable deposits	n.a.	1,449.7	1,603.5	1,748.8	1,986.3
Narrow money supply (M_1)	n.a.	2,832.1	2,832.1	3,043.8	3,227.7

Table 3
Settlement media used by deposit-taking institutions
(end of year)

	IEP millions				
	1988	1989	1990	1991	1992
Required reserves held at central bank	772.2	763.0	910.7	676.9	455.8
<i>of which can be used for settlement</i>	0	0	0	0	0
Free reserves held at central bank 1)	2.3	1.7	1.4	1.9	1.3
Transferable deposits at other institutions	n.a.	n.a.	n.a.	n.a.	n.a.

Table 4
Banknotes and coins
(total value, end of year)

	IEP millions				
	1988	1989	1990	1991	1992
Total banknotes issued	1,275.7	1,382.8	1,421.5	1429.8	1,458.4
<i>of which:</i>					
<i>IEP 100</i>	8.1	7.6	7.1	6.5	5.8
<i>IEP 50</i>	110.5	132.1	144.9	156.5	164.0
<i>IEP 20</i>	778.7	850.8	909.8	921.2	978.9
<i>IEP 10</i>	261.4	270.3	260.3	250.2	222.3
<i>IEP 5</i>	63.3	65.3	77.7	78.4	71.3
<i>IEP 1*</i>	53.0	56.0	21.0	16.3	15.4
<i>Other notes*</i>	0.7	0.7	0.7	0.7	0.7
Coins issued:	71.1	76.5	128.2	137.8	145.3
Notes and coins held by credit institutions	135.7	150.1	246.6	201.8	217.6
Notes and coins in circulation outside credit institutions	n.a.	1,184.7	1,228.6	1,295.0	1,241.4

* in the course of withdrawal from circulation

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts (in thousands (2))	Value of accounts (IEP millions(2))
Central bank	1	0	neg.	13.0
Commercial banks	38	716	1,648	1,905.0
Savings banks (1)	4	113	454	50.1
Building Societies	8	290	0	0
Post office	1	1,376	0	0
TOTAL				
Branches of foreign banks	10	89	n.a.	n.a.
<i>of which EC based</i>	7	86	n.a.	n.a.

(1) Trustee Savings Bank and State-sponsored credit institutions

(2) "Current accounts". Increasingly payments can be made through deposit accounts.

Table 6
Cash dispensers, ATMs and EFT POS terminals
(end of year)

	1988	1989	1990	1991	1992
Cash dispensers and ATMs					
Number of networks	n.a.	2	2	3	3
Number of machines	n.a.	404	534	670	755
Volume of transactions - <i>millions</i>	n.a.	27.76	33.48	45.3	53.7
Value of transactions - <i>millions</i>	n.a.	1,152	1,477	2,013	2,524
EFT POS					
Number of networks	0	0	0	0	0
Number of points of sale	0	0	0	0	0
Volume of transactions	0	0	0	0	0
Value of transactions	0	0	0	0	0

Table 7
Number of payment cards in circulation*
(end of year)

	1988	1989	1990	1991	1992
					000s
Cards with a cash function	n.a.	2,141	2,460	2,752	3,000
Cards with a debit/credit function	n.a.	566	617	664	709
<i>of which:</i>					
<i>cards with a debit function</i>	n.a.	0	0	0	0
<i>cards with a credit function</i>	n.a.	566	617	664	709
Cards with a cheque guarantee function	n.a.	707	891	913	954
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions**

	000s				
	1988	1989	1990	1991	1992
Dublin Bankers' Clearing	n.a.	134,149.4	139,480.0	143,489.4	136,734.5
<i>cheques</i>	n.a.	107,762.7	109,749.5	109,680.4	92,619
<i>direct debits</i>	n.a.	5,243.3	6,504.2	9,953.8	20,204.4
<i>credit transfers - paper</i>	n.a.	13,166.7	13,915.1	10,320.3	12,034.6
<i>credit transfers - electronic</i>	n.a.	7,976.8	9,311.2	13,534.8	11,876.7
The Central Exchange (cheques)	n.a.	3,617.3	4,109.7	3,543.2	6,326.5
Special presentations (large-value cheques)	n.a.	21.7	23.0	13.8	11.0
Daily Interbank Settlement	n.a.	147.5	159.3	181.3	154.5
Paper-based large-value interbank credit transfers	n.a.	147.5	159.3	181.3	154.5

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions**

	IEP billions				
	1988	1989	1990	1991	1992
Dublin Bankers' Clearing	n.a.	212.0	202.4	156.7	137.8
<i>cheques</i>	n.a.	169.0	156.3	145.7	112.7
<i>direct debits</i>	n.a.	4.1	4.3	2.2	5.5
<i>credit transfers - paper</i>	n.a.	38.2	40.3	7.0	17.8
<i>credit transfers - electronic</i>	n.a.	0.7	1.4	1.9	1.9
The Central Exchange (cheques)	n.a.	5.1	10.7	6.1	10.7
Special presentations (large-value cheques)	n.a.	13.5	17.2	16.0	8.6
Daily Interbank Settlement	n.a.	446.6	577.0	539.0	519.5
Paper-based large-value interbank credit transfers	n.a.	446.6	577.0	539.0	519.5

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

	1988	1989	1990	1991	1992
Gilts Settlement Office (government securities)	-	18,279	19,938	20,912	21,517
Talisman (equities)	n.a.	354,746	247,433	182,677	131,945

Table 11

**Transfer instructions handled by securities settlement systems:
value of transactions**

	1988	1989	1990	1991	1992
				IEP billions	
Gilts Settlement Office (government securities)	-	27.2	34.7	48.8	52.4

Table 12

**Indicators of use of various cashless payment instruments:
volume of transactions**

	millions				
	1988	1989	1990	1991	1992
Cheques issued (1)	n.a.	156.8	162.5	148.1	151.4
<i>of which truncated</i>	n.a.	n.a.	n.a.	n.a.	n.a.
Payments by debit and credit cards(1)	n.a.	15.5	18.0	17.7	20.1
Paper-based credit transfers	n.a.	22.2	23.4	20.2	19.8
<i>customer initiated</i>	n.a.	0.1	0.2	0.2	0.2
<i>interbank/large-value</i>	n.a.	13.2	15.4	25.1	24.1
Paperless credit transfers	n.a.	13.2	15.4	25.1	24.1
<i>customer initiated</i>	n.a.	0	0	0	0
<i>interbank/large-value</i>	n.a.	9.1	11.7	24.2	33.2
Direct debits	n.a.	216.9	231.2	235.5	248.8
Total					

(1) Does not include the use of payment instruments to get cash; does not include travellers cheques.

Table 13

**Indicators of use of various cashless payment instruments:
value of transactions**

	IEP billions				
	1988	1989	1990	1991	1992
Cheques issued	n.a.	270.0	267.0	250.3	263.7
<i>of which truncated</i>	n.a.	n.a.	n.a.	n.a.	n.a.
Payments by debit and credit cards	n.a.	0.7	0.8	0.8	0.9
Paper-based credit transfers	n.a.	64.6	68.1	39.2	46.2
<i>customer initiated</i>	n.a.	64.6	68.1	39.2	46.2
<i>interbank/large-value</i>	n.a.	446.6	577.0	539.0	519.5
Paperless credit transfers	n.a.	1.2	2.4	4.1	4.2
<i>customer initiated</i>	n.a.	1.2	2.4	4.1	4.2
<i>interbank/large-value</i>	n.a.	0	0	0	0
Direct debits	n.a.	8.0	9.3	13.8	10.9
Total	n.a.	791.1	924.6	847.2	845.4

Footnotes: see table 12.

Table 14
Participation in S.W.I.F.T. by domestic institutions

	1988	1989	1990	1991	1992
S.W.I.F.T. users	10	12	15	18	21
<i>of which:</i>					
members	3	4	4	4	5
sub-members	7	8	8	12	14
participants	0	0	0	2	2
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
members	1,581	1,697	1,812	1,963	2,074
sub-members	1,228	1,315	1,469	1,607	1,738
participants	27	37	63	78	91

Table 15
S.W.I.F.T. message flows to/from domestic users

	1988	1989	1990	1991	1992
Total messages sent	913,209	1,043,052	1,189,175	1,254,286	1,558,560
<i>of which:</i>					
category I	n.a.	204,960	217,262	241,826	310,777
category II	n.a.	435,878	486,016	458,818	477,387
sent/received to/from domestic users	78,460	108,597	144,044	171,506	258,420
Total messages received:	953,040	1,153,090	1,432,702	1,595,235	1,810,614
<i>of which:</i>					
category I	n.a.	n.a.	n.a.	n.a.	471,115
category II	n.a.	n.a.	n.a.	n.a.	261,543
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,902

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

Table 1
Basic statistical data

	1988	1989	1990	1991	1992
Population* (000s)	57,441	57,525	57,647	57,783	57,899
Gross domestic product (billions)	1,091,837	1,193,463	1,312,065	1,426,579	1,507,191
Exchange rate vis-à-vis ECU*	1537.33	1510.47	1521.98	1533.24	1595.51

* Average for the year

Table 2
Settlement media used by non-banks
(end of year)

ITL billions

	1988	1989	1990	1991	1992
Notes and coins	57,167	67,644	69,449	76,354	85,617
Transferable deposits	331,015	365,461	395,840	441,719	442,418
<i>of which held by:</i>					
<i>households</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	331,569	331,330
<i>corporate sector</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	76,666	74,627
<i>others (1)</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	33,484	36,461
Others (2)	12,199	18,681	17,068	19,429	16,011
Narrow money supply (M ₁)	400,381	451,786	482,357	537,502	544,046

(1) Insurance companies and public authorities.

(2) Banker's drafts, cashiers cheques and current accounts at the Treasury.

Table 3
Settlement media used by deposit-taking institutions
(end of year)

ITL billions

	1988	1989	1990	1991	1992
Required reserves held at central bank (1)	102,898	112,465	125,491	128,915	129,927
<i>of which can be used for settlement (2)</i>	-	-	3,764	6,445	6,496
Free reserves held at central bank	337	516	197	196	127
Transferable deposits at other institutions	66,619	96,062	61,167	55,016	46,407

1 Since 1990, average reserves for the period 15th December - 14th January

2 A procedure for the mobilisation of the compulsory reserves was launched on 10th October 1990. Initially only 3% of the compulsory reserves could be mobilised; since 15th October 1991 the share has been raised up to 5%.

Table 4
Banknotes and coins
(Total value, end of year)

	ITL billions				
	1988	1989	1990	1991	1992
Total banknotes issued	58,952	70,022	73,376	80,491	89,222
<i>of which:</i>					
ITL 100,000	39,863	48,092	51,336	56,570	63,205
ITL 50,000	14,001	16,584	16,553	18,154	20,018
ITL 10,000	3,606	3,724	3,784	3,882	3,929
ITL 5,000	631	688	742	776	827
ITL 2,000	90	105	104	170	298
ITL 1,000	761	829	857	939	945
Coins in circulation	1,251	1,346	1,433	1,533	1,637
Notes and coins held by credit institutions	3,036	3,725	5,360	5,670	5,242
Notes and coins in circulation outside credit institutions	57,167	67,644	69,449	76,354	85,617

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts (in thousands)	Value of accounts (ITL billions)
Central bank	1	98	-	-
Commercial banks	222	14,830	16,047	361,615
Savings banks	-	-	-	-
Cooperative and rural banks	802	5,959	8,403	72,270
Post office	1	14,412	450	8,533
TOTAL	1,026	35,299	24,900	442,418
Branches of foreign banks:	40	52	8	461
<i>of which EC based</i>	18	25	n.a.	405

Table 6
Cash dispensers, ATMs and EFT POS terminals
(end of year)

	1988	1989	1990	1991	1992
Cash dispensers and ATMs					
Number of networks	1	1	1	1	1
Number of machines	5,700	7,791	9,770	11,571	13,917
Volume of transactions (000s) (1)	62,995	80,067	100,663	131,283	162,583
Value of transactions (billions) (1)	16,335	21,513	28,770	38,992	49,168
EFT POS					
Number of networks	-	-	-	-	-
Number of points of sale	4,360(1)	10,240(1)	22,185(1)	45,711	62,251
Volume of transactions (000s) (1)	1,000	2,400	5,400	8,500	12,681
Value of transactions (billions) (1)	133	335	898	1,727	2,526

1 Data relating to a sample group of 75 banks accounting for approximately 80% of current account deposits of the entire banking system.

Table 7
Number of payment cards in circulation
(end of year)

	1988	1989	1990	1991	1992
					000s
Cards with a cash function	n.a.	7,385	9,398	11,083	13,673
Cards with a debit/credit function .	n.a.	8,682	11,212	12,991	13,423
<i>of which:</i>					
<i>cards with a debit function</i>	n.a.	5,002	6,659	8,059	9,494
<i>cards with a credit function</i>	2,949	3,680	4,553	4,932	5,364
Cards with a cheque guarantee function	n.a.	1,808	1,942	2,323	2,187
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions**

	000s				
	1988	1989	1990	1991	1992
LOCAL CLEARING	206,353	360,400	442,689	440,125	292,129
Cheques(1)	203,983	358,000	439,362	436,187	288,458
<i>out-of-town cheques</i>	18,412	191,870	238,135	222,395	96,062
Bills of exchange	370	400	1,000	1,680	1,430
Credit transfers (2)	-	-	-	-	441
Other items (3)	2,000	2,000	2,327	2,258	1,800
MEMORANDA	n.a.	469	1,255	1,465	1,804
Interbank Deposits	-	77	411	722	1,020
Foreign Operations	-	360	721	600	542
Credit Transfers	-	9	34	64	147
Other Items (4)	-	23	89	79	95
Paper Items	n.a.	n.a.	-	-	-
SIPS	-	640	1,833	2,311	2,780
RETAIL	-	-	46,641	125,086	361,783
Cheque Truncation	-	-	13,006	79,162	317,970
Bancomat	-	-	33,635	45,924	(e) 43,813
CENTRALISED ACCOUNTS(1)	1,000	1,002	1,005	949	1,136
Payments between banks and the Banca d'Italia or the Treasury (1)	1,000	1,000	1,000	943	1,116
BISS	-	2	5	6	20

1 Up to 1990 some figures are estimated.

2 Up to 1991 credit transfers are included amount the "other items".

3 Includes: clearing of securities transactions; payment between the banking system and the Treasury, the Bank of Italy or the Postal Administration; credit transfers (up to 1991).

4 In particular settlement of securities transactions.

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions**

	ITL billions				
	1988	1989	1990	1991	1992
LOCAL CLEARING	4,329,450	5,210,747	5,430,309	5,627,226	6,345,384
cheques (1)	718,881	1,165,092	1,506,627	1,611,412	1,605,684
<i>out-of-town cheques</i>	45,275	489,345	646,889	643,187	606,197
Bills of exchange	9,286	10,582	19,835	48,715	45,193
Credit transfers (2)	-	-	-	-	1,024,169
Other items (3)	3,556,008	3,545,728	3,903,847	4,015,814	3,670,338
MEMORANDA	304,118	1,434,396	5,148,000	6,332,000	10,450,000
Interbank Deposits	-	630,560	3,480,000	5,223,000	8,772,000
Foreign Operations	-	524,603	1,014,000	553,000	782,000
Credit Transfers	-	28,005	128,000	225,000	539,000
Other Items (4)	-	131,554	526,000	331,000	357,000
Paper Items	304,118	119,674	-	-	-
SIPS	-	1,718,800	5,647,324	8,273,530	11,994,531
RETAIL	-	600	15,956	75,368	262,740
Cheque Truncation	-	-	6,845	63,643	251,554
Bancomat	-	600	9,111	11,725	11,186
CENTRALISED ACCOUNTS	1,307,100	1,474,525	1,634,400	1,650,500	2,873,100
Payments between banks and the Banca d'Italia or the Treasury	1,307,100	1,456,000	1,608,900	1,613,700	2,775,000
BISS	-	18,525	25,500	36,800	98,100

Footnotes: see Table 8.

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

	1988	1989	1990	1991	1992
Securities Settlement Procedures					
Government securities	n.a.	n.a.	n.a.	n.a.	n.a.
Equity Bonds	n.a.	n.a.	n.a.	n.a.	n.a.
Shares	n.a.	n.a.	n.a.	n.a.	n.a.
Centralised Accounts (CAT)					
(Government securities)	-	-	n.a.	n.a.	n.a.

Table 11

**Transfer instructions handled by securities settlement systems:
value of transactions**

	ITL billions				
	1988	1989	1990	1991	1992
Securities Settlement Procedures	442,445	609,948	1,485,532	3,083,221	4,187,516
Government securities	227,417	365,969	1,252,304	2,922,895	4,053,516
Equity Bonds	192,906	225,681	202,032	132,578	108,875
Shares	22,122	18,298	31,196	27,748	25,125
Centralised Accounts (CAT)(1)					
(Government securities)	-	-	330,418	324,599	327,168

- (1) Procedure launched in September 1990. Net balances resulting from the Securities Settlement procedures are not included.

Table 12

**Indicators of use of various cashless payment instruments:
volume of transactions(1) (2)**

	millions				
	1988	1989	1990	1991	1992
Cheques issued	667.5	688.9	729.7	689.3	674.5
<i>of which truncated</i>	-	-	-	79.1	317.9
Payments by debit and credit cards	18.8	30.4	47.6	63.5	74.8
Paper-based credit transfers	561.1	583.7	617.2	631.3	660.9
<i>customer initiated (2)</i>	558.1	580.7	613.9	628.1	658.0
<i>interbank/large-value</i>	3.0	3.0	3.3	3.2	2.9
Paperless credit transfers:	126.7	135.9	159.0	168.7	172.5
<i>customer initiated (2)</i>	126.7	134.8	155.9	164.9	167.9
<i>interbank/large-value</i>	0	1.1	3.1	3.8	4.6
Direct debits	29.8	38.7	49.9	62.6	69.0
Others	162.8	167.4	168.1	173.4	167.5
paper based transactions (3)	112.8	103.5	91.4	86.8	71.8
paperless transactions (4)	50.0	63.9	76.7	86.6	95.7
Total	1,566.7	1,645.0	1,771.5	1,788.8	1,819.2

- (1) The figures for payment operations effected by banking instruments have been provided by 75 bands accounting for approximately 80% of the current-account deposits of the entire banking systems. The data on the other payment operations (Banca d'Italia cashier's cheques, postal instruments, credit cards, interbank large-value transfers) relate to the entire system.
- (2) Excluding payments between credit institutions and their customers and payments from and to accounts held under the same name in the same deposit taking institution.
- (3) Collections of commercial bills and paper-based bank receipts executed through the banking system.
- (4) Collections of electronic bank receipts (Ri.ba.) executed through the banking system.

Table 13

**Indicators of use of various cashless payment instruments:
value of transactions(1) (2)**

	ITL billions				
	1988	1989	1990	1991	1992
Cheques issued	1,872,550	1,891,715	2,130,696	2,156,272	2,223,172
<i>of which truncated</i>	-	-	-	63,643	251,554
Payments by debit and credit cards	3,476	5,730	8,635	11,754	14,291
Paper-based credit transfers	5,739,369	5,676,688	6,161,729	6,330,668	7,191,203
<i>customer initiated (2)</i>	572,143	555,286	648,982	701,174	745,865
<i>interbank/large-value</i>	5,167,226	5,121,402	5,512,747	5,629,514	6,445,338
Paperless credit transfers:	2,299,050	5,795,539	14,245,811	18,227,933	26,236,791
<i>customer initiated (2)</i>	2,299,050	2,771,493	3,552,987	3,810,603	4,233,160
<i>interbank/large-value</i>	-	3,024,046	10,692,824	14,417,330	22,003,631
Direct debits	27,415	34,417	46,787	61,619	73,741
Others	338,415	383,789	432,347	462,658	468,069
paper based transactions (3)	239,827	239,561	247,686	246,974	218,307
paperless transactions (4)	98,588	144,228	184,661	215,684	249,762
Total	10,280,275	13,787,914	23,026,005	27,250,924	36,207,267

Footnotes: see Table 12

Table 14
Participation in S.W.I.F.T. by domestic institutions

	1988	1989	1990	1991	1992
S.W.I.F.T. users	205	208	216	224	218
<i>of which:</i>					
<i>members</i>	179	184	192	196	188
<i>sub-members</i>	26	24	24	28	30
<i>participants</i>	0	0	0	0	0
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
members	1,581	1,697	1,812	1,963	2,074
sub-members	1,228	1,315	1,469	1,607	1,738
participants	27	37	63	78	91

Table 15
S.W.I.F.T. message flows to/from domestic users

	1988	1989	1990	1991	1992
Total messages sent	16,262,220	17,266,969	18,188,905	19,203,007	21,144,390
<i>of which.</i>					
<i>category I</i>	4,667,877	5,181,772	5,852,557	6,110,992	6,695,298
<i>category II</i>	6,259,338	5,828,060	5,132,683	5,359,223	5,783,865
<i>sent/received to/from domestic users</i>	3,647,354	3,421,754	2,802,044	2,944,909	3,465,396
Total messages received:	15,758,658	16,603,267	16,973,327	18,148,442	20,008,765
<i>of which:</i>					
<i>category I</i>	-	-	-	-	6,101,945
<i>category II</i>	-	-	-	-	4,243,352
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,902

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

Table 1
Basic statistical data

	1988	1989	1990	1991	1992
Population* (000s)	373	377	380	378	382
Gross domestic product (billions)	250.2	282.8	300.4	318.8	339.1
Exchange rate vis-à-vis ECU*	43.429	43.381	42.426	42.223	45.593

* Average for the year

Table 2
Settlement media used by non-banks
(end of year)

LUF billions

	1988	1989	1990	1991	1992
Notes and coins	15.5	15.8	15.8	16.1	16.1
Transferable deposits	43.1	50.8	57	64.3	65.8
Narrow money supply (M_1)	58.6	66.6	72.8	80.4	81.9

Table 3
Settlement media used by deposit-taking institutions
(end of year)

LUF millions

	1988	1989	1990	1991	1992
Required reserves held at central bank	0	0	0	0	0
Free reserves held at central bank	0	0	0	0	0
Transferable deposits at other institutions	426	446	503	594	660

Table 4
Banknotes and coins
(total value, end of year)

	LUF millions				
	1988	1989	1990	1991	1992
Total banknotes issued (1)	2,967.6	2,974.1	3,513.9	3,409.8	3,234.0
<i>of which:</i>					
5000 LUF	-	-	-	-	0.0
1000 LUF	2,468.5	2,277.5	2,639.4	2,469.6	2,316.8
100 LUF	212.7	227.5	237.5	239.7	231.2
Coins issued (2)	286.4	469.2	637.0	700.5	686.0
Notes and coins held by credit institutions (3)	2,409.8	2,207.7	3,167.8	3,302.5	3,976.5
Notes and coins in circulation outside credit institutions (4)	15,500	15,800	15,800	16,100	16,100

(1) These data include the Belgian notes and coins which are legal tender in Luxembourg.

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts	Value of accounts (LUF millions)
Central bank	1	0	0	0
Commercial banks	213	361	1,315,145(1)	2,689
Savings banks				
Cooperative and rural banks	2	41	n.a.	n.a.
Post office	1	106	95,258	8,366
TOTAL	218	508	n.a.	n.a.
Branches of foreign banks	63	n.a.	n.a.	n.a.
<i>of which EC based</i>	49	n.a.	n.a.	n.a.

(1) This figure indicates in fact the number of the different customers holding deposits with banks in Luxembourg.

Table 6
Cash dispensers, ATMs and EFT POS terminals
(end of year)

	1988	1989	1990	1991	1992
Cash dispensers and ATMs					
Number of networks	2	2	2	2	2
Number of machines		47	77	87	120
Volume of transactions (mio)			2.7	2.9	3.4
Value of transactions (mio LUF)			13.4	13.9	15.5
EFT POS					
Number of networks	3	3	3	3	3
Number of machines			7,900	10,655	11,669
Volume of transactions (mio)			6.2	7.4	8.2
Value of transactions (bio LUF)			19.7	24.1	27.9

Table 7
Number of payment cards in circulation*
(end of year)

	1988	1989	1990	1991	1992
Cards with a cash function	231.0	259.7	293.5	324.9	384.4
Cards with a debit/credit function	231.2	259.7	293.5	324.9	384.4
<i>of which:</i>					
<i>cards with a debit function</i>	134.0	146.4	151.9	164.8	204.3
<i>cards with a credit function</i>	97.2	113.3	141.7	160.0	180.2
Cards with a cheque guarantee function	134.0	146.4	151.9	164.8	204.3
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions**

	1988	1989	1990	1991	1992
Clearing house*	n.a.	n.a.	5.9	6.1	6.1
<i>of which:</i>					
<i>cheques</i>	n.a.	n.a.	n.a.	n.a.	n.a.
<i>other</i>	n.a.	n.a.	n.a.	n.a.	n.a.

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions**

	1988	1989	1990	1991	1992
Clearing house*	n.a.	n.a.	517.0	593.0	681.0
<i>of which:</i>					
<i>cheques</i>	n.a.	n.a.	n.a.	n.a.	n.a.
<i>other</i>	n.a.	n.a.	n.a.	n.a.	n.a.

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

	1988	1989	1990	1991	1992
CEDEL	n.a.	n.a.	517.0	593.0	681.0
<i>of which:</i>					
short-term government securities	n.a.	n.a.	n.a.	n.a.	n.a.
securities	n.a.	n.a.	n.a.	n.a.	n.a.
commercial papers	n.a.	n.a.	n.a.	n.a.	n.a.

Table 11

**Transfer instructions handled by securities settlement systems:
value of transactions**

	1988	1989	1990	1991	1992
CEDEL	n.a.	n.a.	517.0	593.0	681.0
<i>of which:</i>					
short-term government securities	n.a.	n.a.	n.a.	n.a.	n.a.
securities	n.a.	n.a.	n.a.	n.a.	n.a.
commercial paper	n.a.	n.a.	n.a.	n.a.	n.a.

Table 12

**Indicators of use of various cashless payment instruments:
volume of transactions**

LUF millions

	1988	1989	1990	1991	1992
Cheques issued	n.a.	n.a.	n.a.	4.0	n.a.
Payments by debit and credit cards	n.a.	n.a.	n.a.	10.2	n.a.
Credit transfers	n.a.	n.a.	n.a.	15.7	n.a.
Direct debits	n.a.	n.a.	n.a.	8.2	n.a.
Total	n.a.	n.a.	n.a.	38.1	n.a.

Table 13

**Indicators of use of various cashless payment instruments:
value of transactions**

LUF billions

	1988	1989	1990	1991	1992
Cheques issued	n.a.	n.a.	n.a.	245.8	n.a.
Payments by debit and credit cards	n.a.	n.a.	n.a.	38.1	n.a.
Credit transfers	n.a.	n.a.	n.a.	2,856.1	n.a.
Direct debits	n.a.	n.a.	n.a.	42.0	n.a.
Total	n.a.	n.a.	n.a.	3,182.0	n.a.

Table 14
Participation in S.W.I.F.T. by domestic institutions

	1988	1989	1990	1991	1992
S.W.I.F.T. users	58	77	103	116	127
<i>of which:</i>					
<i>members</i>	12	14	19	23	20
<i>sub-members</i>	46	63	84	93	107
<i>participants</i>					
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
members	1,581	1,697	1,812	1,963	2,074
sub-members	1,228	1,315	1,469	1,607	1,738
participants	27	37	63	78	91

Table 15
S.W.I.F.T. message flows to/from domestic users

	1988	1989	1990	1991	1992
Total messages sent	4,655,904	5,749,582	6,847,561	7,918,440	8,778,092
<i>of which:</i>					
<i>category I</i>	<i>n.a.</i>	1,378,750	561,213	1,754,424	186,946
<i>category II</i>	<i>n.a.</i>	2,045,126	430,845	657,813	3,177,649
sent/received to/from domestic users	406,237	577,268	839,165	1,100,597	1,404,567
Total messages received:	3,317,977	4,229,343	5,140,932	6,248,039	7,301,934
<i>of which:</i>					
<i>category I</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	-
<i>category II</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	-
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,962

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

Table 1
Basic statistical data

	1988	1989	1990	1991	1992
Population (000s)	14,760	14,849	14,951	15,065	15,170
Gross domestic product (billions)	457.40	484.67	516.32	543.56	562.58
Exchange rate vis-à-vis ECU*	2.3348	2.3353	2.3121	2.3110	2.2748

* Average for the year

Table 2
Settlement media used by non-banks
(end of year)

NLG billions

	1988	1989	1990	1991	1992
Notes and coins	34.6	36.0	36.5	37.0	37.0
Transferable deposits	76.7	83.0	87.5	92.3	98.1
<i>of which held by:</i>					
<i>households</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	37.8
<i>corporate sector</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	59.1
<i>other</i>	1.5	1.1	0.9	1.9	1.1
Narrow money supply (M ₁)	111.3	119.0	124.0	129.3	135.1

Table 3
Settlement media used by deposit-taking institutions
(end of year)

NLG millions

	1988	1989	1990	1991	1992
Required reserves held at central bank	1,698	6,078	6,605	0	12,484
<i>of which can be used for settlement (1)</i>	1,698	6,078	6,605	0	12,484
Free reserves held at central bank	129	31	17	116	32
Transferable deposits at other institutions	4	2	4	3	2

(1) As collateral

Table 4
Banknotes and coins
(total value, end of year)

	NLG billions				
	1988	1989	1990	1991	1992
Total banknotes issued	34.7	36.3	36.9	37.3	37.3
<i>of which</i>					
NLG 1,000	15.2	15.5	15.4	15.5	15.1
NLG 250	3.3	3.8	4.1	4.2	4.3
NLG 100	12.5	13.0	13.4	13.6	13.8
NLG 50	1.1	1.3	1.4	1.5	1.6
NLG 25	1.7	1.9	1.8	1.7	1.7
NLG 10	0.7	0.7	0.7	0.7	0.7
NLG 5	0.2	0.1	0.07	0.06	0.06
Coins issued	2.0	2.3	2.5	2.6	2.6
Notes and coins held by credit institutions	2.2	2.6	2.9	2.9	2.9
Notes and coins in circulation outside credit institutions	34.6	36.0	36.5	37.0	37.0

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts (in thousands)	Value of accounts (NLG billions)
Central bank	1	10	4	3.3
Commercial banks	86	2,678	4,100	52.4
Savings banks	44	434	600	2.0
Cooperative and rural banks	1	2,056	4,600	24.6
Postbank	1	2,300	6,200	19.0
TOTAL	133	7,478	15,500	101.3
Branches of foreign banks	23	23	n.a.	n.a.
<i>of which EC based</i>	11	11	n.a.	n.a.

Table 6
Cash dispensers, ATMs and EFT POS terminals
(end of year)

	1988	1989	1990	1991	1992
Cash dispensers and ATMs					
Number of networks	2	2	2	2	2
Number of machines	1,107	1,839	2,700	3,354	3,964
Volume of transactions (<i>millions</i>)	n.a.	n.a.	168	355	487
Value of transactions (<i>billions</i>)	n.a.	n.a.	26	60	82
EFT POS					
Number of networks	3	3	2	2	2
Number of points of sale	1,495	2,047	2,223	4,038	11,440
Volume of transactions (<i>millions</i>)	n.a.	17	27	32	47
Value of transactions (<i>billions</i>)	n.a.	0.7	1.3	1.8	3.8

Table 7
Number of payment cards in circulation*
(end of year)

	1988	1989	1990	1991	1992
Cards with a cash function	n.a.	n.a.	n.a.	n.a.	n.a.
Cards with a debit/credit function .	n.a.	n.a.	n.a.	n.a.	n.a.
<i>of which:</i>					
<i>cards with a debit function</i>	n.a.	n.a.	n.a.	n.a.	n.a.
<i>cards with a credit function</i>	n.a.	n.a.	n.a.	n.a.	n.a.
Cards with a cheque guarantee function	n.a.	n.a.	n.a.	n.a.	n.a.
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions**

	millions				
	1988	1989	1990	1991	1992
Bankgirocentrale	808.2	895.8	944.1	992.6	1,043.7
cheques	127.0	118.2	114.6	110.5	91.7
other	681.2	777.6	829.5	882.1	952.0
8007 SWIFT	0.8	0.9	1.4	2	1.8
cheques	0	0	0	0	0
other	0.8	0.9	1.4	2.0	1.8
Central bank FA-system	0.8	0.8	0.8	0.5	0.6
cheques	0	0	0	0	0
other	0.8	0.8	0.8	0.5	0.6

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions**

	NLG billions				
	1988	1989	1990	1991	1992
Bankgirocentrale	1,463.4	1,566.0	1,711.9	1,851.8	1,942.0
cheques	16.4	16.0	16.5	16.2	15.3
other	1,447.0	1,550.0	1,695.4	1,835.6	1,926.7
8007 SWIFT	2,196.5	2,947.3	5,252.9	7,862.0	8,055.0
cheques	0	0	0	0	0
other	2,196.5	2,947.3	5,252.9	7,862.0	8,055.0
Central bank FA-system	9,370.0	10,354.0	10,137.0	6,765.0	7,860.0
cheques	0	0	0	0	0
other	9,730.0	10,354.0	10,137.0	6,765.0	7,860.0

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

	000s				
	1988	1989	1990	1991	1992
Amsterdam Stock Exchange	n.a.	n.a.	n.a.	n.a.	n.a.
Clearing institute central bank					
for money market paper	2	4	4	3	2

Table 11

**Transfer instructions handled by securities settlement systems:
value of transactions**

	millions				
	1988	1989	1990	1991	1992
Amsterdam Stock Exchange	182.7	170.0	179.0	234.0	303.6
Clearing institute central bank					
for money market paper	15.3	45.2	42.1	21.7	16.2

Table 12

**Indicators of use of various cashless payment instruments:
volume of transactions**

	millions				
	1988	1989	1990	1991	1992
Cheques issued	278	267	260	247	222
Payments by debit and credit cards	5	17	27	32	47
Paper-based credit transfers	91	101	102	98	104
<i>customer initiated</i>	91	101	102	98	104
<i>interbank/large-value</i>	0	0	0	0	0
Paperless credit transfers	930	965	956	963	1,003
<i>customer initiated</i>	928	963	954	960	1,001
<i>interbank/large-value</i>	2	2	2	3	2
Direct debits	263	329	360	392	431
Total	1,567	1,679	1,705	1,732	1,808

Table 13

**Indicators of use of various cashless payment instruments:
value of transactions**

	NLG billions				
	1988	1989	1990	1991	1992
Cheques issued	36	36	35	33	32
Payments by debit and credit cards	0.2	0.7	1.3	2.0	3.8
Paper-based credit transfers	40	41	48	45	48
<i>customer initiated</i>	40	41	48	45	48
<i>interbank/large-value</i>	0	0	0	0	0
Paperless credit transfers	16,373	15,904	18,142	17,032	18,741
<i>customer initiated</i>	4,746	2,603	2,752	2,405	2,826
<i>interbank/large-value</i>	11,627	13,301	15,390	14,627	15,915
Direct debits	187	200	223	246	226
Total	16,637	16,182	18,449	17,358	19,050

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1988	1989	1990	1991	1992
S.W.I.F.T. users	48	50	53	54	55
<i>of which:</i>					
<i>members</i>	26	27	29	30	29
<i>sub-members</i>	21	22	23	23	25
<i>participants</i>	1	1	1	1	1
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
members	1,581	1,697	1,812	1,963	2,074
sub-members	1,228	1,315	1,469	1,607	1,738
participants	27	37	63	78	91

Table 15

S.W.I.F.T. message flows to/from domestic users

	1988	1989	1990	1991	1992
Total messages sent	10,243,652	11,204,861	12,168,453	12,944,436	13,547,572
<i>of which:</i>					
<i>category I</i>	5,297,656	5,664,570	5,836,114	6,071,972	6,310,685
<i>category II</i>	2,336,383	2,606,782	2,743,791	2,790,345	2,733,648
<i>sent/received to/from domestic users</i>	1,107,095	1,031,989	999,117	1,419,578	1,763,389
Total messages received:	9,420,520	10,199,217	11,331,221	12,158,421	12,865,625
<i>of which:</i>					
<i>category I</i>	-	-	-	-	4,941,606
<i>category II</i>	-	-	-	-	1,921,436
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,902

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

Table 1
Basic statistical data

	1988	1989	1990	1991	1992
Population* (000s)	9,761	9,793	9,808	9,815	9,859
Gross domestic product (billions)	6,003	7,130	8,507	9,912	11,364
Exchange rate vis-à-vis ECU*	170.06	173.42	181.11	178.61	174.71

* Average for the year

Table 2
Settlement media used by non-banks
(end of year)

	1988	1989	1990	1991	1992
					PTE billions
Notes and coins	n.a.	577.3	623.9	683.1	708.2
Transferable deposits	n.a.	1,228.6	1,724.6	2,041.7	2,500.2*
<i>of which held by:</i>					
<i>households</i>	n.a.	651.1	1,020.5	1,186.5	1,420.4
<i>corporate sector</i>	n.a.	548.7	667.4	797.9	988.2
<i>other</i>	n.a.	28.2	36.7	57.3	91.6
Other	n.a.	55.5	60.3	95.4	141.5
Narrow money supply (M ₁)	n.a.	1,861.4	2,408.8	2,820.2	3,349.9
(Deposits in foreign currencies)	n.a.	11.0	10.5	10.1	54.8

* This does not include cheques held by other institutions on 31/12/92 to the amount of 416 PTE billions.

Table 3
Settlement media used by deposit-taking institutions
(end of year)

	1988	1989	1990	1991	1992
					PTE billions
Required reserves held at central bank*	n.a.	1,221.1	1,284.3	1,652.1	1,848.4
<i>of which can be used for settlement</i>	n.a.	1,221.1	1,284.3	1,652.1	1,848.4
Free reserves held at central bank	n.a.	n.a.	n.a.	n.a.	10.8
Transferable deposits at other institutions	n.a.	34.1	20.2	15.3	10.5
<i>Memorandum item:</i>					
Broad money aggregate	n.a.	5,787.7	6,909.6	8,223.8	9,292.2

* Includes free reserves held at Central Bank

Table 4
Banknotes and coins
(total value, end of year)

	PTE billions				
	1988	1989	1990	1991	1992
Total banknotes issued	547.6	616.3	674.3	736.2	761.9
<i>of which:</i>					
PTE 10,000	-	49.8	151.9	217.2	269.2
PTE 5,000	409.6	434.3	401.9	404.7	372.5
PTE 2,000	-	-	-	10.2	33.6
PTE 1,000	113.5	107.5	99.8	87.6	73.3
PTE 500	13.9	13.9	14.3	14.1	13.3
PTE 100	10.9	10.8	6.4	2.4	-
Coins issued:	12.5	16.6	23.3	35.7	40.9
Notes and coins held by credit institutions	n.a.	55.4	73.6	88.8	94.6
Notes and coins in circulation outside credit institutions	n.a.	577.5	624.0	683.1	708.2

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts (in thousands)	Value of accounts (PTE billions)
Central bank	1	16	-	-
Commercial banks	27	1,987	9,822	2,138.2
Savings banks	3	699	6,006	708.1
Cooperative and rural banks	223	478	958	163.8
Post office	1	974	124	1.1
Total	255	4,154	16,910	3,011.2
Branches of foreign banks	7	73	48	63.3
<i>of which EC based</i>	5	69	47	62.0

Table 6
Cash dispensers, ATMs and EFT POS terminals
(end of year)

	1988	1989	1990	1991	1992
Cash dispensers and ATMs					
Number of networks	1	1	1	1	1
Number of machines	339	519	821	1,265	1,938
Volume of transactions (<i>millions</i>)	16.5	33.2	39.2	55.3	73.5
Value of transactions (<i>billions</i>)	150.6	242.2	391.7	584.4	792.8
EFT POS					
Number of networks	1	1	1	1	1
Number of machines	310	809	2,672	7,097	15,540
Volume of transactions (<i>millions</i>)	0.9	3.0	7.8	21.9	44.7
Value of transactions (<i>billions</i>)	6.0	20.8	45.5	160.3	304.6

Table 7
Number of payment cards in circulation*
(end of year)

	1988	1989	1990	1991	1992
Cards with a cash function	1,337	1,644	2,400	3,230	4,245
Cards with a debit/credit function	n.a.	374	3,430	4,004	5,279
<i>of which:</i>					
<i>cards with a debit function</i>	-	-	-	-	4,649
<i>cards with a credit function</i>	-	-	-	-	630
Cards with a cheque guarantee function	n.a.	770	n.a.	379	399
Retailer cards	n.a.	8	9	55	70

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions**

	millions				
	1988	1989	1990	1991	1992
Telecompensação (teleclearing)	-	50.9	119.5	189.4	207.3
<i>of which:</i>					
<i>cheques</i>	-	50.9	119.5	187.2	202.4
<i>other*</i>	-	-	-	2.2	4.9
Traditional clearing	147.6	113.7	66.7	13.5	14.0
<i>of which:</i>					
<i>cheques</i>	141.8	107.3	60.7	7.8	8.5
<i>other**</i>	5.8	6.4	6.0	5.7	5.5

* Mainly "Electronic transfers"

** Mainly "Payment transfers"

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions**

	PTE billions				
	1988	1989	1990	1991	1992
Telecompensação (teleclearing)	-	11,897	30,631	44,142	49,023
<i>of which:</i>					
<i>cheques</i>	-	11,897	30,631	43,541	47,410
<i>other*</i>	-	-	-	601	1,613
Traditional clearing	32,036	43,855	51,289	64,400	105,168
<i>of which:</i>					
<i>cheques</i>	26,751	22,992	11,924	1,413	1,544
<i>other**</i>	5,285	20,863	39,365	62,987	103,624

* Mainly "Electronic transfers"

** Mainly "Payment transfers"

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

	PTE millions				
	1988	1989	1990	1991	1992
BVL	40.5	100.26	175.1	366.3	362.2
Bonds	22.3	46.4	112.8	234.4	226.0
(of which Public Debt*)	(6.3)	(15.9)	(36.0)	(102.4)	(135.0)
Shares	16.0	48.8	53.7	121.4	124.8
Participation Bonds	2.2	5.0	8.3	10.0	10.1
Investment Trust Units	-	0.06	0.3	0.5	1.3
BVP	22.9	28.9	107.5	261.03	243.5
Bonds	7.8	7.9	67.6	194.8	146.3
(of which Public Debt*)	(2.0)	(2.3)	(27.8)	(85.7)	(68.4)
Shares	14.0	18.4	34.9	62.0	89.7
Participation Bonds	1.1	2.6	5.0	4.2	6.7
Investment Trust Units	-	-	0.01	0.03	0.8
MB (O.T.C. market)	107.0	276.6	598.8	527.3	538.2
Bonds	75.6	208.6	488.8	404.8	420.7
(of which Public Debt*)	(14.6)	(45.9)	(171.1)	(87.8)	(94.5)
Shares	24.2	59.7	102.5	107.4	106.8
Participation Bonds	7.2	6.7	6.6	13.7	8.9
Investment Trust Units	0.02	1.6	0.9	1.4	1.8

* Issues by Public Administration

Table 11
Transfer instructions handled by securities settlement systems:
value of transactions

	PTE billions				
	1988	1989	1990	1991	1992
BVL	136.4	327.4	397.6	1,093.9	1,446.0
Bonds	36.1	104.5	213.6	791.3	1,163.9
(of which Public Debt*)	(20.5)	(74.9)	(138.9)	(655.2)	(1,041.3)
Shares	97.6	215.3	168.4	284.7	264.0
Participation Bonds	2.7	6.9	13.7	15.4	13.8
Investment Trust Units	-	0.7	2.1	2.5	4.3
BVP	87.5	108.1	258.86	811.3	781.4
Bonds	18.1	18.3	131.7	668.6	555.6
(of which Public Debt*)	(10.6)	(13.0)	(53.5)	(558.7)	(456.2)
Shares	67.9	85.7	117.2	132.7	203.2
Participation Bonds	1.5	4.1	9.9	9.9	13.7
Investment Trust Units	-	-	0.06	0.1	8.9
MB (O.T.C. market)	206.1	565.0	1,680.9	1,264.4	1,759.1
Bonds	117.8	496.5	1,381.4	1,028.6	1,537.7
(of which Public Debt*)	(38.3)	(130.4)	(435.9)	(309.9)	(595.1)
Shares	80.6	147.4	288.7	218.4	193.0
Participation Bonds	7.7	8.2	7.6	15.7	24.7
Investment Trust Units	0.03	3.6	3.2	1.7	3.7

* Issues by Public Administration

Table 12

**Indicators of use of various cashless payment instruments:
volume of transactions**

	millions				
	1988	1989	1990	1991	1992
Cheques issued	n.a.	194.1	n.a.	231.4	252.6
<i>of which truncated</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Payments by debit and credit cards	n.a.	7.6	18	43.9	79.0
Paper-based credit transfers	n.a.	5.5	n.a.	10.3	5.8
<i>customer initiated</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>interbank</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paperless credit transfers	n.a.	12.2	n.a.	13.7	19.3
<i>customer initiated</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>interbank</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Direct debits	n.a.	11.4	n.a.	17.7	20.4
Total	n.a.	230.8	n.a.	317.0	377.1

Table 13

**Indicators of use of various cashless payment instruments:
value of transactions**

	PTE billions				
	1988	1989	1990	1991	1992
Cheques issued	n.a.	29,701.7	n.a.	61,458.7	56,628.7
<i>of which truncated</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Payments by debit and credit cards	n.a.	77.8	164.3	364.2	613.5
Paper-based credit transfers	n.a.	1,924.3	n.a.	7,175.4	8,530.4
<i>customer initiated</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>interbank</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paperless credit transfers	n.a.	1,740.0	n.a.	1,951.9	5,087.5
<i>customer initiated</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>interbank</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Direct debits	n.a.	148.4	n.a.	738.5	790.5
Total	n.a.	33,592.2	n.a.	71,688.7	71,650.6

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1988	1989	1990	1991	1992
S.W.I.F.T. users	24	25	29	32	33
<i>of which:</i>					
<i>members</i>	16	17	18	20	20
<i>sub-members</i>	8	8	11	12	13
<i>participants</i>	-	-	-	-	-
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
members	1,581	1,697	1,812	1,963	2,074
sub-members	1,228	1,315	1,469	1,607	1,738
participants	27	37	63	78	91

Table 15

S.W.I.F.T. message flows to/from domestic users

	1988	1989	1990	1991	1992
Total messages sent	1,547,172	1,848,205	2,117,948	2,434,293	2,888,879
<i>of which:</i>					
<i>category I</i>	<i>n.a.</i>	376,849	445,193	546,012	678,020
<i>category II</i>	<i>n.a.</i>	576,085	661,647	728,584	865,797
sent/received to/from domestic users	172,120	213,185	224,478	260,134	316,132
Total messages received:	1,632,705	1,914,862	2,201,565	2,491,675	2,852,452
<i>of which:</i>					
<i>category I</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	715,751
<i>category II</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	498,878
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,962

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

Table 1
Basic statistical data

	1988	1989	1990	1991	1992
Population*: (000s)	57,065	57,236	57,411	57,370	57,542
Gross domestic product: (billions)	471.34	515.324	550.354	573.34	595.211
Exchange rate vis-à-vis ECU*	0.6644	0.67330	0.7138	0.7010	0.7376

* Average for the year

Table 2
Settlement media used by non-banks
(end of year)

	GBP billions				
	1988	1989	1990	1991	1992
Notes and coins	14.4	15.4	15.2	15.7	17.0
Narrow money deposits (1)	200.6	220.9	240.0	262.6	357.0(1)
Narrow money supply (M ₂)	215.0	236.3	255.2	278.3	374.0

(1) Since December 1992 the definition of "narrow money deposits" has been modified.

Table 3
Settlement media used by deposit banking institutions
(end of year)

	GBP billions				
	1988	1989	1990	1991	1992
Cash ratio deposit (1)	1.14	1.49	1.71	1.59	1.41
Free reserves held at central bank	0.154	0.164	0.003	0.027	0
Transferable deposits with other credit institutions (2)	37.0	45.4	47.6	46.8	53.1

(1) Authorised institutions with average eligible liabilities of £10 million or more are liable to lodge with the Bank of England non-operational, non-interest bearing deposits of 0.35% (at 31.12.93) of their eligible liabilities (0.25% for institutions for which Northern Ireland is the main place of business in the UK).

(2) Includes some time deposits.

Table 4
Banknotes and coins
(Total value, end of year)

	GBP millions				
	1988	1989	1990	1991	1992
Total banknotes issued ²	14,711	15,450	15,810	16,096	16,445
<i>of which</i>					
GBP 50	<i>n.a.</i>	<i>n.a.</i>	2,518	2,640	2,801
GBP 20	<i>n.a.</i>	<i>n.a.</i>	5,277	5,797	6,498
GBP 10	<i>n.a.</i>	<i>n.a.</i>	6,426	6,323	5,856
GBP 5	<i>n.a.</i>	<i>n.a.</i>	1,528	1,276	1,232
GBP 1	<i>n.a.</i>	<i>n.a.</i>	61	60	58
Notes and coins held by credit institutions(1)	3,420	3,461	4,113	4,152	3,482
Notes and coins in circulation outside credit institutions(1)	14,447	15,359	15,256	15,716	16,968

(1) Average for the month of December

(2) Bank of England notes only. Average of Wednesdays in December.

Table 5
Institutional framework
(end of 1992)

Categories	Number of institutions	Number of branches	Number of accounts (000s)	Value of accounts (GBP billions) (1)
Central bank	1	5	neg.	neg.
Commercial banks	512	13,259 (e)	78,000 (e)	169.2 (1)
Building Societies	88	5,765	41,400	187.9 (2)
Post office	1	20,160	15,800	1.4 (3)
TOTAL	602	39,189	135,900	358.5
Branches of foreign banks	255	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>of which EC based</i>	79	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

1 All retail private sector sterling accounts with UK banks (including the central bank and Girobank).

2 Private sector ordinary share and deposit accounts with UK building societies and shares and deposits below £50,000 to corporate bodies. Retail issues of subscribed capital e.g. Perpetual Interest Bearing Shares are excluded.

3 National Savings Ordinary Accounts only. NSB facilities are available at Post Offices on an agency basis. The value of these deposits is not included in "narrow money deposits" in table 2.

Table 6
Cash dispensers, ATMs and EFT POS terminals

	1988	1989	1990	1991	1992
Cash dispensers and ATMs					
Number of networks	4	4	3	3	3
Number of machines	13,980	15,740	17,000	17,780	18,280
Volume of transactions (<i>millions</i>)	754	883	992	1,066	1,147
Value of transactions (<i>billions</i>)(e)	29	35	43	49	54
EFT POS					
Number of networks(1)	3	3	3	3	3
Number of machines (e)(2)	24,300	75,000	110,000	190,000	220,000
Volume of transactions	n.a.	n.a.	n.a.	n.a.	n.a.
Value of transactions	n.a.	n.a.	n.a.	n.a.	n.a.

(1) SWITCH, Visa and MasterCard.

(2) SWITCH, Visa and MasterCard. The number of points of sale is not available. (Several machines can be installed in one point of sale)

Table 7
Number of payment cards in circulation*
(end of year)

	1988	1989	1990	1991	1992
	millions				
Cards with a cash function(1)	53.2	65.4	66.9	65.8	67.9
Cards with a debit/credit function of which:					
<i>cards with a debit function</i>	<i>n.a.²</i>	<i>13.6</i>	<i>19.0</i>	<i>20.1</i>	<i>22.6</i>
<i>cards with a credit function(1 3)</i>	<i>27.2</i>	<i>30.1</i>	<i>31.4</i>	<i>28.4</i>	<i>27.9</i>
Cards with a cheque guarantee function	33.1	37.8	42.3	43.0	44.4
Retailer cards(e)	n.a.	n.a.	n.a.	n.a.	11

* A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.

1 Bank cards only (excludes cards issued by some building societies).

2 Debit cards introduced in 1988.

3 Bank Visa, MasterCard and Travel and Entertainment (charge cards) cards only (excludes cards issued by some building societies).

Table 8

**Payment instructions handled by selected interbank funds transfer systems:
volume of transactions**

	millions				
	1988	1989	1990	1991	1992
Town Clearing	3.25	2.46	0.902	0.32	0.11
CHAPS	5.78	6.44	7.79	8.00	9.08
Cheque and Credit Clearings					
Cheques (1)	2,364	2,449	2,517	2,472	2,395
Paper based credit transfers (1)	202	198	191	183	182
BACS					
Credit transfers	651	707	756	786	819
Direct debits	595	709	846	916	1,001
TOTAL	3,821	4,071	4,319	4,365.3	4,406.1

(1) excludes inter-branch items

Table 9

**Payment instructions handled by selected interbank funds transfer systems:
value of transactions**

	GBP billion				
	1988	1989	1990	1991	1992
Town Clearing	7,693	6,754	4,776	2,228	1,387
CHAPS	11,289	14,733	18,880	19,050	20,928
Cheque and Credit Clearings					
Cheques (1)	1,056	1,142	1,210	1,207	1,175
Paper based credit transfers (1)	112	116	118	113	110
BACS					
Credit transfers	269	333	418	484	519
Direct debits	154	193	250	288	284
TOTAL	20,573	23,271	25,652	23,370	24,403

Table 10

**Transfer instructions handled by securities settlement systems:
volume of transactions**

	000s				
	1988	1989	1990	1991	1992
CGO(1)	n.a.	n.a.	n.a.	584	678.2
CMO(2)	-	-	n.a.	219.1	247.6
Equities (listed) (3)	3,550	4,136	3,455	4,140	4,254

- (1) CGO = Central Gilts Office (UK government stock and certain other stock registered at the Bank of England.
- (2) CMO = Central Moneymarkets Office (Began operations in October 1990)
- (3) Includes Irish equities which settle through the TALISMAN system operated by the International Stock Exchange.

Table 11

**Transfer instructions handled by securities settlement systems:
value of transactions**

	GBP billions				
	1988	1989	1990	1991	1992
CGO(1)	n.a.	n.a.	n.a.	4,355	6,862
CMO(2)	-	-	n.a.	1,651	2,054
Equities (listed) (3)	163	198	158	180	217

Footnotes: see Table 10

Table 12
Indicators of use of various cashless payment instruments:
volume of transactions

	millions				
	1988	1989	1990	1991	1992
Cheques issued (1)					
large value (Town)	4	3	1	0.4	<0.1
others	3,059	3,143	3,212	3,126	3,005
Payments by card:					
debit	n.a.	68	192	359	522
credit(4)	597	651	693	690	715
Paper-based credit transfers(2)	481	494	496	477	462
Paperless credit transfers:					
large value (CHAPS)	6	6	8	8	9
others (2)	727	782	832	861	892
Direct debits	595	709	846	916	1,001
Total (3)	5,469	5,856	6,280	6,437.4	6,606

- 1 Excludes cheques processed at branch level. Includes cheques used by customers to obtain cash from a different bank other than their own.
- 2 Excludes items processed at branch level.
- 3 Excludes postal orders and government payments in cash from post offices against state benefit vouchers.
- 4 Visa and MasterCard only. Excludes transactions by holders of charge cards (travel and entertainment cards) and retailers cards.

Table 13
Indicators of use of various cashless payment instruments:
value of transactions

	GBP billions				
	1988	1989	1990	1991	1992
Cheques issued: (1)					
large value (Town)	9,867	9,440	5,120	2,420	1,458
others	1,373	1,469	1,549	1,533	1,483
Payments by card:					
debit	n.a.	1.7	5.1	9.5	13.8
credit (4)	20.4	23.8	27.7	29.4	31.3
Paper-based credit transfers: (2)	578	629	677	652	621
Paperless credit transfers:					
large value (CHAPS)	11,289	14,733	18,880	19,050	20,928
others (2)	286	352	441	512	542
Direct debits	154	193	250	288	284
Total (3)	23,567.4	26,841.5	26,949.8	24,493.9	25,361.1

See footnotes Table 12.

Table 14
Participation in S.W.I.F.T. by domestic institutions (1)

	1988	1989	1990	1991	1992
S.W.I.F.T. users	235	256	272	286	295
<i>of which:</i>					
<i>members</i>	47	53	54	54	57
<i>sub-members</i>	181	191	196	204	210
<i>participants</i>	7	12	22	28	28
Memorandum item:					
Total SWIFT worldwide	2,836	3,049	3,344	3,648	3,903
members	1,581	1,697	1,812	1,963	2,074
sub-members	1,228	1,315	1,469	1,607	1,738
participants	27	37	63	78	91

(1) UK and Isle of Man

Table 15
S.W.I.F.T. message flows to/from domestic users (1)

	1988	1989	1990	1991	1992
Total messages sent	29,905,363	35,768,234	40,436,615	43,171,404	48,167,743
<i>of which:</i>					
<i>category I</i>	6,176,752	6,903,624	7,639,886	8,106,518	8,851,050
<i>category II</i>	11,118,051	12,995,940	14,036,209	14,799,002	16,
<i>sent/received to/from domestic users</i>	6,621,661	8,091,519	9,495,324	10,058,121	11,538,743
Total messages received:	26,672,115	31,430,355	35,495,611	37,850,280	42,182,121
<i>of which:</i>					
<i>category I</i>	-	-	-	-	10,212,447
<i>category II</i>	-	-	-	-	7,863,519
Memorandum item:					
Global S.W.I.F.T. traffic	255,142,610	298,780,982	332,895,932	365,159,291	405,540,902

(1) UK and Isle of Man

Definitions

- Sub-members: domestic users sponsored by members abroad;
- participants: users which are not shareholders in SWIFT; their message traffic over the network is restricted;
- Category I: customer (funds) transfers
- Category II: bank (funds) transfers

PART 3: COMPARATIVE TABLES

Table 1: Notes and coins in circulation

	Total (ECU) millions		ECU per inhabitant		% GDP		% M1	
	1991	1992	1991	1992	1991	1992	1991	1992
Belgium	9,762	9,956	974	991	6.14	5.87	31.3	31.5
Denmark	3,065	3,197	595	619	2.91	2.88	n.a.	n.a.
Germany	83,772	99,243	1,047	1,231	6.58	7.23	28.4	29.9
Greece	5,577	5,709	547	551	9.76	9.44	59.7	59.8
Spain	37,760	45,461	996	1,163	8.85	10.30	20.4	23.4
France	36,498	37,354	640	651	3.76	3.65	15.7	15.9
Ireland	1,687	1,632	479	459	4.80	4.34	42.5	38.5
Italy	44,981	47,813	778	826	4.83	5.06	15.1	15.6
Luxembourg	381	400	990	1,027	5.02	4.70	20.0	19.7
Netherlands	16,001	16,287	1,058	1,079	6.80	6.60	28.5	27.4
Portugal	3,533	4,057	359	411	6.37	6.23	26.5	21.1
UK	22,400	23,048	389	401	2.74	2.86	n.a.	n.a.
EU	265,417	294,157	777	845	5.28	5.29	n.a.	n.a.

Table 2: POINTS OF ENTRY INTO THE PAYMENT SYSTEM

	Number of Institutions offering payment services (1)		Number of central bank branches (1)		Number of bank branches (1)		Number of Post Office branches (1)(2)		Others (1)		Total number of branches offering payment services (1)		Number of accounts on which payments can be made (per capita)	
	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992
Belgium	12	13	2.3	1.8	1,015	1,027	313	214	-	-	1,331	1,247	0.98	0.97
Denmark	43	42	0.2	0.2	563	512	253	251	-	-	816	753	1.86	2.30
Germany	54	50	2.5	2.4	612	616	323	273	-	-	935	892	0.95	0.96
Greece	5	5	9.3	9.3	133	150	-	-	7	9	160	172	0.09	0.09
Spain	8	8	1.3	1.3	895	898	-	-	-	-	896	899	1.66	1.85
France	12	11	3.8	3.7	453	445	299	294	72	69	828	812	1.05	1.08
Ireland	14	14	0.0	0.0	320	315	-	-	-	-	320	315	0.59	0.59
Italy	19	18	1.7	1.7	330	359	249	249	-	-	581	610	0.43	0.43
Luxembourg	495	546	0.0	0.0	927	1,031	277	272	-	-	1,204	1,302	3.30	3.69
Netherlands	10	9	0.8	0.7	360	342	177	152	-	-	538	495	1.09	1.0
Portugal	27	27	2.1	1.6	290	321	109	99	-	-	402	429	1.62	1.72
United Kingdom	11	10	0.1	0.0	235	230	358	350	103	100	696	681	2.43	2.36
EU	23	22	2.0	2.0	492	495	253	234	20	20	767	749	1.22	1.23

(1) Per 1,000,000 inhabitants.

(2) If the post offices offers payment services.

Table 3: CASH DISPENSERS AND ATMS

	Number of machines per 1,000,000 inhabitants (end of year)		Number of transactions per capita		Average value per transactions (in ECUs)		Increase of the number of machines		Increase in the number of transactions		Increase in the value of the transactions	
	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992
Belgium	105	109	8.1	8.8	87	90	12%	4%	14%	9%	19%	12%
Denmark	72(e)	102(e)	n.a.	5.2	n.a.	86	20%	42%	n.a.	n.a.	n.a.	n.a.
Germany	171	236	n.a.	n.a.	n.a.	n.a.	22%	38%	n.a.	n.a.	n.a.	n.a.
Greece	46	68	n.a.	n.a.	n.a.	n.a.	45%	49%	n.a.	n.a.	n.a.	n.a.
Spain	441	504	9.6	10.2	92	96	23%	14%	5%	6%	5%	15%
France	285	304	10.8	11.7	67	67	12%	8%	12%	9%	19%	6%
Ireland	190	213	12.9	15.1	58	62	25%	13%	35%	19%	36%	25%
Italy	200	240	2.3	3.4(1)	194	189	18%	20%	28%	24%	33%	26%
Luxembourg	226	308	7.6	8.6	114	114	13%	38%	7%	16%	4%	11%
Netherlands	219	263	23.2	32.0	73	74	24%	18%	111%	37%	131%	37%
Portugal	128	197	5.6	7.5	59	62	54%	53%	41%	33%	49%	36%
United Kingdom	309	318	18.5	19.9	65	64	5%	3%	8%	8%	13%	-2%
EU	244	280	n.a.	n.a.	n.a.	n.a.	16%	15%	n.a.	n.a.	n.a.	n.a.

(1) Figure for the whole system; not actually directly comparable with the statistics of the Italian chapter.

Table 4: EFT/POS

	Number of POS per 1,000,000 inhabitants		Number of transactions per capita		Average value per transactions (in ECUs)		Increase in the number of POS		Increase in the number of transactions		Increase in the value of transactions	
	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992
Belgium	2,652	3,227	9.9	12.0	43	46	12%	22%	25%	22%	32%	29%
Denmark	3,743	4,336	16.6	21.3	55	46	22%	16%	39%	29%	37%	5%
Germany	432	643	0.3	0.3	44	34	50%	49%	477%	39%	810%	6%
Greece	147	241	n.a.	n.a.	n.a.	n.a.	n.a.	67%	n.a.	n.a.	n.a.	n.a.
Spain	5,574	6,699	2.5	3.6	79	67	-30%	20%	24%	44%	14%	25%
France	3,533	5,585	n.a.	22.7	34	48	11%	58%	n.a.	24%	n.a.	74%
Ireland	0	0	0	0	-	-	-	-	-	-	-	-
Italy	678	1,075	0.15	0.26(1)	132	125	72%	36%	56%	49%	90%	46%
Luxembourg	27,704	29,936	19.4	21.1	77	84	35%	10%	20%	11%	22%	16%
Netherlands	264	758	2.1	3.1	25	36	82%	183%	17%	47%	38%	111%
Portugal	721	1,576	2.2	4.5	41	39	166%	119%	181%	104%	252%	90%
United Kingdom	3,299	3,958	n.a.	n.a.	n.a.	n.a.	73%	16%	n.a.	n.a.	n.a.	n.a.
EU	2,190	2,908	n.a.	n.a.	n.a.	n.a.	4%	33%	n.a.	n.a.	n.a.	n.a.

(1) See table 3

Table 5: Use of Payment Cards (end of year)

Number of cards per 1,000 inhabitants										Average number of			
	Cards with a cash function		Cards with a debit or a credit function		Cards with a cheque function		Retailer Cards			Cash withdrawals per card with a cash function		Payments per card with a credit/debit function	
	1991	1992	1991	1992	1991	1992	1991	1992		1991	1992	1991	1992
Belgium	684	773	695	785	464	456	76	91		12	11	17	18
Denmark	440	476	440	476	39	35	n.a.	n.a.		n.a.	11	38	45
Germany	n.a.	n.a.	419	487	398	395	19	37		n.a.	n.a.	4	5
Greece	80	86	80	86	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.
Spain	744	820	744	820	0	0	n.a.	n.a.		13	12	3	4
France	364	368	403	365	1	3	353	349		30	32	58	62
Ireland	781	845	188	200	259	269	n.a.	n.a.		n.a.	n.a.	27	28
Italy	206	236	225	232	52	38	n.a.	n.a.		11	14(1)	5	5
Luxembourg	845	986	845	986	429	524	n.a.	n.a.		9	9	23	21
Netherlands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.
Portugal	328	431	407	535	39	40	6	7		17	17	11	15
United Kingdom	1,234	1,180	871	878	794	772	208	191		15	17	21	24
EU	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.

(1) See table 3

Table 6: Major Interbank Funds Transfer Systems in the European Union (Figures for 1992)

(1) Large value systems								Number transactions		Value transactions	Average value of transactions
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Name of the system	(Thous)	(b ECU)	(mios ECU)
DK	CB	RTT	RTGS	O	C	V	15.30	DN Inquiry and transfer system	356	2,092	5.87
D	CB	RTT	N	O	C	V	12.30	EAF	7,744	41,094	5.29
D	CB	RTT	RTGS	O	D	F	14.30	Eliger Zahlungsverkehr	2,649	6,737	2.54
E	CB	RTT	N	O	C	F	13.00	STMD	750	11,612	15.48
F	CB	RTT	N	RM	C	F	13.00	SAGITTAIRE	3,300	6,847	2.62
IRL	B	RTT	GS	RM	C	S	15.00	Special Presentations	11	11	1.03
IRL	CB	M	GS	RM	C	S	16.00	Daily Interbank Settlement	155	683	4.42
I	CB	M	N	O	C	V	14.00	SIPS	2,780	7,517	2.70
I	CB	RTT	RTGS	O	C	V	17.00	BISS	1,136	1,800	1.58
I	CB	RTT	N	O	C	V	16.00	Electronic Memoranda	1,804	6,549	3.63
NL	CB	RTT	RTGS	O	C	V	15.30	Central Bank system	600	3,455	5.76
NL	CB	ACH	N	O	C	F	11.30	8007 SWIFT	1,800	3,541	1.97
GB	B	M	N	RM	C	V	15.50	Town Clearing	110	1,880	17.10
GB	B	RTT	N	RM	D	V	15.10	CHAPS	9,079	28,373	3.13
EUR	B	RTT	N	RM	C	F	14.00	ECU Clearing and Settlement System	1,668	11,704	7.02

(2) SYSTEMS WHICH PROCESS LARGE-VALUE AND RETAIL (BULK) TRANSACTIONS

(1) Large value systems								Number transactions		Value transactions	Average value of transactions
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Name of the system	(Thous.)	(b ECU)	(th. ECU)
B	CB	(a)	N	O	C	F	13.30	CEC	695,200	383	0.5
B	CB	M	N	O	D	S	14.30	Clearing House of B. (excl CEC)	24,670	4,882	198
D	CB	M	GS	O	D	N	12.00	Conventional local cr. tr. syst.	71,865	4,173	58
D	CB	M	N	O	D	N	13.00	Daily local clearing	381,159	27,410	72
GR	B	M	N	O	D	V	15.00	Athens Clearing Office	12,881	283	18
F	CB							Banque de France	42,700	6,213	145
I	CB	M	N	O	D	V	13.30	Local Clearing	292,129	3,977	14
L	B	M	N	O	C	F	10.30	Clearing House	6,200	17	3
NL	B	RTT	GS	O	C	F	13.30	BGC Speedcircuit	3,500	265	76
P	CB	M	N	RM	D	N	14.00	Traditional Clearing	14,000	602	43

(3) RETAIL SYSTEMS (FOR BULK PAYMENTS)

(1) Large value systems								Number transactions		Value transactions	Average value of transactions
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Name of the system	(mios)	(b ECU)	(ECU)
DK	CB	ACH	N	O	C/D	S	9.00	DN Retail clearing	373	235	630
DK	B							Girobank	245	499	2,039
D	CB	(c)	GS	O	D	V	NO	Machine/optional voucher processing (MAOBE)	588	1,558	2.65
D	CB	ACH	GS	O	D	V	NO	Paperless exch. of data medio (DTA)	2,061	840	0.41
E	B	M	N	O	D	N	NO	Clearing Houses	144	240	1.66
E	CB	RTT	BN	O	D	V	NO	SNCE	344	577	1.67
F	B/CB	M	N	O	D	N	11.00/15.00	Clearing Houses	3,652	18,745	5,132
F	CB	ACH	N	RM	D	F	11.00	Computer Clearing Centres	1,811	1,119	618
F	CB	ACH	N	O	D	V	NO	CREIC	231	19	83
F	B	ACH	N	RM	D	F	10.30	National Syst. for pay. by cards	1,608	83	52
F	B	RTT	BN	RM	D	F	13.30	Interbank Teleclearing System (SIT)	302	34	1,062
IRL	B	(b)	N	RM	C	F	NO	Dublin Bankers' Clearing	137	181	1.32
IRL	CB	M	N	RM	C	S	NO	The Central Exchange	6.3	14	2.22
I	CB	ACH	N	O	C	V	NO	Retail sub-system	362	165	0.45
NL	B	ACH	N	O	C	F	11.30	BankGiro System	1,044	588	563
P	B	RTT	N	RM	C	V	NO	Telecompensacao	207	281	1,357
GB	B	ACH	N	RM	C	V	NO	BACS	1,820	1,089	598
GB	B	M	N	RM	D	V	NO	Cheques and Credit Clearing	2,577	1,285	676

(1) Country

(2) Owner/Manager: B = Banks, CB = Central Banks

(3) Processing method: M = Manual, ACH = Automated Clearing House (off line), RTT = Real Time Transmission

(4) N = Multilateral netting, BN = Bilateral netting, RTGS = real-time gross settlement, GS = other gross settlement.

(5) O = Open Membership (any bank can apply) or RM = Restricted Membership (subject to criteria).

(6) Geographical access to the system: C = Centralised (one processing centre only) or D = decentralised.

(7) Prices charged to participants: F = Full costs (including investments), V = Variable costs.

S = Symbolic costs (below variable costs), N = No costs

(8) Closing time for same day transactions (NO = no same day transactions)

(a) ACH and RTT

(b) M and ACH

(c) ACH for paper-based instruments.

Table 7: USE OF PAYMENT INSTRUMENTS
(Total number of transactions, in millions)

	Cheques		Payment by Cards		Credit transfers		Direct debits		Others		Total	
	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992
Belgium	194	174	119	145	512	529	58	81	-	-	883	929
Denmark	135	124	116	147	291	305	58	65	-	-	600	641
Germany	880	902	170	214	4,710	5,084	n.a.	n.a.	-	-	n.a.	n.a.
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	252	241	98	141	63	66	576	634	-	-	989	1,082
France	4,512	4,617	1,314	1,435	1,390	1,480	854	980	163	159	8,155	8,572
Ireland	148	151	18	20	45	44	24	33	-	-	236	249
Italy(1)	840	801	65	77	806	868	169	83	-	201	1,880	2,030
Luxembourg	4	n.a.	10	n.a.	16	n.a.	8	n.a.	-	-	38	n.a.
Netherlands	247	222	32	47	1,061	1,108	392	431	-	-	1,732	1,808
Portugal	231	253	44	79	24	25	18	20	-	-	317	377
United Kingdom	3,126	3,005	1,049	1,237	1,346	1,362	916	1,001	-	-	6,453	6,605
EU(2)	10,571	10,494	3,035	3,574	10,460	10,887	n.a.	n.a.	163	360	n.a.	n.a.

(1) See table 3

(2) Excluding Greece; 1991 figures for Luxembourg in 1992.

Table 8: USE OF PAYMENT INSTRUMENTS
(Number of instruments per inhabitant)

	Cheques		Payments by Cards		Credit transfers		Direct Debits		Others		Total	
	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992
Belgium	19	17	12	14	51	53	6	8	-	-	88	92
Denmark	26	28	23	28	57	59	11	13	-	-	117	124
Germany	11	11	2	3	61	63	n.a.	n.a.	-	-	n.a.	n.a.
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	6	6	2	4	2	2	15	16	-	-	25	28
France	80	81	23	25	24	26	14	17	3	3	144	152
Ireland	42	43	5	6	13	12	7	9	-	-	67	70
Italy(1)	15	14	1	1	14	15	3	1	-	3	33	34
Luxembourg	11	n.a.	27	n.a.	42	n.a.	22	n.a.	-	-	101	n.a.
Netherlands	16	15	2	3	70	73	26	29	-	-	114	120
Portugal	23	26	4	8	2	2	2	2	-	-	32	38
United Kingdom	54	52	18	21	24	24	16	17	-	-	112	114
EU(2)	31	30	9	10	30	31	n.a.	n.a.	0	0	n.a.	n.a.

(1) See table 3

(2) See table 7

Table 9: USE OF PAYMENT INSTRUMENTS IN 1990
(% OF TOTAL NUMBER OF TRANSACTIONS)

	Cheques		Payments by Cards		Credit transfers		Direct Debit		Others	
	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992
Belgium	22	19	13	16	58	57	7	8	-	-
Denmark	22	19	19	23	49	47	10	21	-	-
Germany	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	26	22	10	13	6	6	58	59	-	-
France	55	53	16	17	17	17	10	11	2	2
Ireland	63	61	8	8	19	18	10	13	-	-
Italy(1)	45	40	3	4	43	42	9	4	-	10
Luxembourg	10	n.a.	27	n.a.	41	n.a.	22	n.a.	-	-
Netherlands	14	12	2	3	61	61	23	24	-	-
Portugal	73	67	14	21	7	7	6	5	-	-
United Kingdom	49	45	16	19	21	21	14	15	-	-
EU	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

(1) See table 3

PART 4: GLOSSARY

LIST OF TERMS AND ABBREVIATIONS*

Advisory netting: see position netting.

Assured payment system (APS): an arrangement in an exchange-for-value system under which completion of timely settlement of a payment instruction is supported by an irrevocable and unconditional commitment from a third party (typically a bank, syndicate of banks or clearing house). See exchange-for-value settlement system.

Automated clearing house (ACH): an electronic clearing system in which payment orders are exchanged among financial institutions, primarily via magnetic media or telecommunication networks, and handled by a data-processing centre. See also clearing.

Automated teller machine (ATM): electro-mechanical device that permits authorised users, typically using machine-readable plastic cards, to withdraw cash from their accounts and/or access other services, such as balance enquiries, transfer of funds or acceptance of deposits. ATMs may be operated either on-line with real-time access to an authorisation database or off-line.

Bank draft: in Europe, the term generally refers to a draft drawn by a bank on itself. The draft is purchased by the payer and sent to the payee, who presents it to his bank for payment. That bank presents it to the payer's bank for reimbursement. In the United States, the term generally refers to a draft or cheque drawn by a bank on itself or on funds deposited with another bank. In the case of a cashier's cheque, the bank is both the drawer and drawee. In the case of a teller's cheque, one bank is the drawer and a second bank is the drawee. Bank drafts may be written by a bank for its own purposes or may be purchased by a customer and sent to a payee to discharge an obligation. See draft.

Batch: the transmission or processing of a group of payment orders and/or securities transfer instructions as a set at discrete intervals of time.

Beneficial ownership/interest: the entitlement to receive some or all of the benefits of ownership of a security or other financial instrument (e.g. income, voting rights, power to transfer). Beneficial ownership is usually distinguished from "legal ownership" of a security or financial instrument. See legal ownership.

* This glossary gives an explanation of terms used in the payments context on the basis of best consensus between the central banks involved (G-10 and EC). It does not attempt to provide precise legal definitions. It is recognised that it may not always be possible to find an exact equivalent for each term in other languages.

Bilateral net settlement system: a settlement system in which participants' bilateral net settlement positions are settled between every bilateral combination of participants. See also net credit or debit position.

Bilateral netting: an arrangement between two parties to net their bilateral obligations. The obligations covered by the arrangement may arise from financial contracts, transfers or both. See netting, multilateral netting, net settlement.

Bill of exchange: a written order from one party (the drawer) to another (the drawee) to pay a specified sum on demand or on a specified date to the drawer or to a third party specified by the drawer. Widely used to finance trade and, when discounted with a financial institution, to obtain credit. See also draft.

Book-entry system: an accounting system that permits the transfer of claims (e.g. securities) without the physical movement of paper documents or certificates. See also dematerialisation, immobilisation.

Bulk transfer system: see retail transfer system.

Call money: a loan contract which is automatically renewed every day unless the lender or the borrower indicates that it wishes the funds to be returned within a short period of time.

Capital risk: see principal risk.

Caps: for risk management purposes, the quantitative limits placed on the positions (debit or credit positions, which may be either net or gross) that participants in a funds or securities transfer system can incur during the business day. Caps may be set by participants on credit extended bilaterally to other participants in a system, e.g. bilateral credit limits, or by the system operator or by the body governing the transfer system on the aggregate net debit a participant may incur on the system, e.g. sender net debit limits. Sender net debit limits may be either collateralised or uncollateralised.

Card: see cash card, cheque guarantee card, chip card, credit card, debit card, delayed debit card, prepaid card, retailer's card, travel and entertainment card.

Cash card: card for use only in ATMs or cash dispensers (often, other cards also have a cash function that permits the holder to withdraw cash).

Cash dispenser: electro-mechanical device that permits consumers, typically using machine-readable plastic cards, to withdraw banknotes (currency) and, in some cases, coins. See also automated teller machine (ATM).

Cashier's cheque: see bank draft.

Central bank credit (liquidity) facility: a standing credit facility that can be drawn upon by certain designated account holders (e.g. banks) at the central bank. In some cases, the facility can be used automatically at the initiative of the account holder, while in other cases the central bank may retain some degree of discretion. The loans typically take the form either of advances or overdrafts on an account holder's current account which may be secured by a pledge of securities (also known as lombard loans in some European countries), or of traditional rediscounting of bills.

Central securities depository: a facility for holding securities which enables securities transactions to be processed by book entry. Physical securities may be immobilised by the depository or securities may be dematerialised (i.e. so that they exist only as electronic records). In addition to safekeeping, a central securities depository may incorporate comparison, clearing and settlement functions.

Certificate: physical document which evidences an ownership claim in, indebtedness of, or other outstanding financial obligations of the issuer.

Chaining: a method used in certain transfer systems (mostly for securities) for processing instructions. It involves the manipulation of the sequence in which transfer instructions are processed to increase the number or value of transfers that may be settled with available funds and/or securities balances (or available credit or securities lending lines).

Charge card: see travel and entertainment card.

Cheque: a written order from one party (the drawer) to another (the drawee, normally a bank) requiring the drawee to pay a specified sum on demand to the drawer or to a third party specified by the drawer. Widely used for settling debts and withdrawing money from banks. See also bill of exchange.

Cheque guarantee card: a card issued as part of a cheque guarantee system. This function may be combined with other functions in the same card, e.g. those of a cash card or debit card. See also cheque guarantee system.

Cheque guarantee system: a system to guarantee cheques, typically up to a specified amount, that have been validated by the merchant either on the basis of a card issued to the cheque writer or through a central database accessible to merchants. Validated cheques are guaranteed by the issuer of the guarantee card, the drawee bank or the system operator.

Chip card: also known as an IC (integrated circuit) card or smart card. A card containing one or more computer chips or integrated circuits for identification, data storage or special-purpose processing used to validate personal identification numbers (PINs), authorise purchases, verify account balances and store personal records. In some cases, the memory in the card is updated every time the card is used, e.g. an account balance is updated.

Clearing/Clearance: clearing is the process of transmitting, reconciling and in some cases confirming payment orders or security transfer instructions prior to settlement, possibly including netting of instructions and the establishment of final positions for settlement. In the context of securities markets this process is often referred to as clearance. Sometimes the terms are used (imprecisely) to include settlement.

Clearing house: a central location or central processing mechanism through which financial institutions agree to exchange payment instructions or other financial obligations (e.g. securities). The institutions settle for items exchanged at a designated time based on the rules and procedures of the clearing house. In some cases, the clearing house may assume significant counterparty, financial or risk management responsibilities for the clearing system. See clearing/clearance, clearing system.

Clearing house funds: term most commonly used in certain US markets to refer to funds that typically are provisional on the day of receipt and final on the following day. More specifically, the term is used to refer to monetary claims with next-day finality that are exchanged by participants in certain clearing house arrangements in settlement of obligations arising from the clearing process. Such claims are typically transferred via cheques, drafts or other similar payment instruments.

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 include 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.

Comparison: see matching.

Confirmation: a particular connotation of this widely used term is the process whereby a market participant notifies its counterparties or customers of the details of a trade and, typically, allows them time to affirm or to question the trade.

Correspondent banking: an arrangement under which one bank (correspondent) holds deposits owned by other banks (respondents) and provides payment and other services to those respondent banks. Such arrangements may also be known as agency relationships in some domestic contexts. In

international banking, balances held for a foreign respondent bank may be used to settle foreign exchange transactions. Reciprocal correspondent banking relationships may involve the use of so-called *nostro* and *vostro* accounts to settle foreign exchange transactions.

Counterparty: the opposite party to a financial transaction, such as a securities trade or swap agreement.

Credit caps: see caps.

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 prearranged ceiling; the credit granted can be settled in full by the end of a specified 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 card company: a company which owns the trademark of a particular credit card, and may also provide a number of marketing, processing or other services to the members using the card services.

Credit risk/exposure: the risk that a counterparty will not settle an obligation for full value, either when due or at any time thereafter. In exchange-for-value systems, the risk is generally defined to include replacement cost risk and principal risk.

Credit transfer: a payment order or possibly a sequence of payment orders made for the purpose of placing funds at the disposal of the beneficiary. Both the payment instructions and the funds described therein move from the bank of the payer/originator to the bank of the beneficiary, possibly via several other banks as intermediaries and/or more than one credit transfer system.

Credit transfer system (or giro system): a system through which payment instructions and the funds described therein may be transmitted for the purpose of effecting credit transfers.

Cross-currency settlement risk (or Herstatt risk): see principal risk.

Custody: the safekeeping and administration of securities and financial instruments on behalf of others.

Daylight credit (or daylight overdraft, daylight exposure, intraday credit): credit extended for a period of less than one business day; in a credit transfer system with end-of-day final settlement, daylight credit is tacitly extended by a receiving institution if it accepts and acts on a payment order even though it will not receive final funds until the end of the business day.

Debit caps: see caps.

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

Debit transfer system (or debit collection system): a funds transfer system in which debit collection orders made or authorised by the payer move from the bank of the payee to the bank of the payer and result in a charge (debit) to the account of the payer; for example, cheque-based systems are typical debit transfer systems.

Default: failure to complete a funds or securities transfer according to its terms for reasons that are not technical or temporary, usually as a result of bankruptcy. Default is usually distinguished from a "failed transaction".

Delayed debit card: card issued by banks indicating that the holder may charge his account up to an authorised limit. It enables him to make purchases but does not offer extended credit, the full amount of the debt incurred having to be settled at the end of a specified period. The holder is usually charged an annual fee.

Deletion: a mechanism whereby some or all transfers to/from a defaulting participant are excluded from the settlement process. In a netting scheme, other participants' bilateral and/or multilateral net positions are recalculated. See unwinding.

Delivery: final transfer of a security or financial instrument.

Delivery versus payment system (or DVP, delivery against payment): a mechanism in an exchange-for-value settlement system that ensures that the final transfer of one asset occurs if and only if the final transfer of (an)other asset(s) occurs. Assets could include monetary assets (such as foreign exchange), securities or other financial instruments. See exchange-for-value settlement system, final transfer.

Dematerialisation: the elimination of physical certificates or documents of title which represent ownership of securities so that securities exist only as accounting records.

Direct debit: a pre-authorised debit on the payer's bank account initiated by the payee.

Direct participant/member: the term generally denotes participants in a funds or securities transfer system that directly exchange transfer orders with other participants in the system. In some systems direct participants also exchange orders on behalf of indirect participants. Depending on the system,

direct participants may or may not also be settling participants. In the EC context this term has a specific meaning: it refers to participants in a transfer system which are responsible to the settlement institution (or to all other participants) for the settlement of their own payments, those of their customers and those of indirect participants on whose behalf they are settling. See participant/member, indirect participant/member, settling participant/member.

Discharge: release from a legal obligation imposed by contract or law.

Draft: a written order from one party (the drawer) to another (the drawee) to pay a party identified on the order (payee) or to bearer a specified sum, either on demand (sight draft) or on a specified date (time draft). See cheque, bank draft, bill of exchange.

EFTPOS: see point of sale (POS).

Electronic data interchange (EDI): the electronic exchange between commercial entities (in some cases also public administrations), in a standard format, of data relating to a number of message categories, such as orders, invoices, customs documents, remittance advices and payments. EDI messages are sent through public data transmission networks or banking system channels. Any movement of funds initiated by EDI is reflected in payment instructions flowing through the banking system. EDIFACT, a United Nations body, has established standards for electronic data interchange.

Exchange-for-value settlement system: system which involves the exchange of assets, such as money, foreign exchange, securities or other financial instruments, in order to discharge settlement obligations. These systems may use one or more funds transfer systems in order to satisfy the payment obligations that are generated. The links between the exchange of assets and the payment system(s) may be manual or electronic. See delivery versus payment system.

Face-to-face payment: payment carried out by the exchange of instruments between the payer and the payee in the same physical location.

Failed transaction: a transaction (e.g. a funds or securities transfer) that does not settle on time, usually for technical or temporary reasons.

Final (finality): irrevocable and unconditional.

Final settlement: settlement which is irrevocable and unconditional.

Final transfer: an irrevocable and unconditional transfer which effects a discharge of the obligation to make the transfer. The terms "delivery" and "payment" are each defined to include a final transfer.

Giro system: see credit transfer system.

Gridlock: a situation that can arise in a funds or securities transfer system in which the failure of some transfer instructions to be executed (because the necessary funds or securities balances are unavailable) prevents a substantial number of other instructions from other participants from being executed. See also failed transaction, queuing, systemic risk.

Gross settlement system: a transfer system in which the settlement of funds or securities transfers occurs individually on an order-by-order basis according to the rules and procedures of the system, i.e. without netting debits against credits. See real-time gross settlement, net settlement system.

Haircut: the difference between the market value of a security and its collateral value. Haircuts are taken by a lender of funds in order to protect the lender, should the need arise to liquidate the collateral, from losses owing to declines in the market value of the security. See margin.

Herstatt risk: see principal risk.

Home banking: banking services which a retail customer of a financial institution can access using a telephone, television set, terminal or personal computer as a telecommunication link to the institution's computer centre.

IC card: see chip card.

Immobilisation: Placement of certificated securities and financial instruments in a central securities depository to facilitate book-entry transfers.

Imprinter: mechanical device to reproduce the name and account number of a cardholder on a paper sales slip. See also imprinter voucher.

Imprinter voucher: in card transactions, a sales slip that is to be signed by the customer on which the name and card number of the customer are imprinted. See also imprinter.

Indirect participant/member: refers to a funds or securities transfer system in which there is a tiering arrangement. Indirect participants are distinguished from direct participants by their inability to perform some of the system activities (e.g. input of transfer orders, settlement) performed by direct participants. Indirect participants, therefore, require the services of direct participants to perform those activities on their behalf. In the EC context the term refers more specifically to participants in a

transfer system which are responsible only to their direct participants for settling the payments input to the system. See direct participant/member, settling participant/member, tiering arrangement.

Interbank funds transfer system (IFTS): a funds transfer system in which most (or all) direct participants are financial institutions, particularly banks and other credit institutions.

Intraday credit: see daylight credit.

Irrevocable and unconditional transfer: a transfer which cannot be revoked by the transferor and is unconditional.

Issuer: the entity which is obligated on a security or other financial instrument. For example, a corporation or government having the authority to issue and sell a security; a bank that approves a letter of credit. Sometimes used to refer to a financial institution that issues credit or debit cards.

Large-value funds transfer system: interbank funds transfer system through which large-value and high-priority funds transfers are made between participants in the system 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 large. Large-value funds transfer systems are sometimes called wholesale funds transfer systems.

Legal ownership: recognition in law as the owner of a security or other financial instrument.

Letter of credit (L/C): a promise by a bank or other issuer to a third party to make payment on behalf of a customer in accordance with specified conditions. Frequently used in international trade to make funds available in a foreign location.

Liquidity risk: the risk that a counterparty (or participant in a settlement system) will not settle an obligation for full value when due. Liquidity risk does not imply that a counterparty or participant is insolvent since it may be able to settle the required debit obligations at some unspecified time thereafter.

Loss-sharing rule (or loss-sharing agreement): an agreement between participants in a transfer system or clearing house arrangement regarding the allocation of any loss arising when one or more participants fail to fulfil their obligation: the arrangement stipulates how the loss will be shared among the parties concerned in the event that the agreement is activated.

Magnetic ink character recognition (MICR): a technique, using special MICR machine-readable characters, by which documents (i.e. cheques, credit transfers, direct debits) are read by machines for electronic processing. See optical character recognition (OCR).

Margin: margin has at least two meanings. In the futures/commodity markets, margin is a good faith deposit (of money, securities or other financial instruments) required by the futures clearing system to assure performance. In the equities markets, margin is a sum of money deposited by a customer when borrowing money from a broker to purchase shares. The money deposited with the broker is the difference between the purchase value of the shares and the collateral value of the shares. See haircut.

Marking to market: the practice of revaluing securities and financial instruments using current market prices. In some cases unsettled contracts to purchase and sell securities are marked to market and the counterparty with an as yet unrealised loss on the contract is required to transfer funds or securities equal to the value of the loss to the other counterparty.

Matching (or comparison checking): the process used by market participants before settlement of a transaction to ensure that they agree with respect to the terms of the transaction.

Money order: an instrument used to remit money to the named payee, often used by persons who do not have a chequing account relationship with a financial institution, to pay bills or to transfer money to another person or to a company. There are three parties to a money order: the remitter (payer), the payee and the drawee. Drawees are usually financial institutions or post offices. Payees can either cash their money orders or present them to their bank for collection.

Multilateral net settlement position: the sum of the value of all the transfers a participant in a net settlement system has received during a certain period of time less the value of the transfers made by the participant to all other participants. If the sum is positive, the participant is in a multilateral net credit position; if the sum is negative, the participant is in a multilateral net debit position.

Multilateral net settlement system: a settlement system in which each settling participant settles (typically by means of a single payment or receipt) the multilateral net settlement position which results from the transfers made and received by it, for its own account and on behalf of its customers or non-settling participants for which it is acting. See multilateral netting, multilateral net settlement position, settling participant and direct participant.

Multilateral netting: an arrangement among three or more parties to net their obligations. The obligations covered by the arrangement may arise from financial contracts, transfers or both. The multilateral netting of payment obligations normally takes place in the context of a multilateral net

settlement system. See bilateral netting, multilateral net settlement position, multilateral net settlement system.

Net credit or debit position: a participant's net credit or net debit position in a netting system is the sum of the value of all the transfers it has received up to a particular point in time less the value of all transfers it has sent. If the difference is positive, the participant is in a net credit position; if the difference is negative, the participant is in a net debit position. The net credit or net debit position at settlement time is called the net settlement position. These net positions may be calculated on a bilateral or multilateral basis.

Net debit cap: see caps, net credit or debit position.

Net settlement: the settlement of a number of obligations or transfers between or among counterparties on a net basis. See netting.

Net settlement system: a system to effect net settlement.

Netting: an agreed offsetting of positions or obligations by trading partners or participants. The netting reduces a large number of individual positions or obligations to a smaller number of obligations or positions. Netting may take several forms which have varying degrees of legal enforceability in the event of default of one of the parties. See also bilateral and multilateral netting, position netting, novation, substitution.

Nominee: a person or entity named by another to act on his behalf.

Novation: satisfaction and discharge of existing contractual obligations by means of their replacement by new obligations (whose effect, for example, is to replace gross with net payment obligations). The parties to the new obligations may be the same as to the existing obligations or, in the context of some clearing house arrangements, there may additionally be substitution of parties. See substitution.

Obligation: a duty imposed by contract or law. It is also used to describe a security or other financial instrument, such as a bond or promissory note, which contains the issuer's undertaking to pay the owner.

Off-line: in the context of payment and settlement systems, the term may refer to the transmission of transfer instructions by users, through such means as voice, written or telefaxed instructions, that must subsequently be input into a transfer processing system. The term may also refer to the storage of data by the transfer processing system on media such as magnetic tape or disk such that the user may not have direct and immediate access to the data. See on-line.

On-line: in the context of payment and settlement systems, the term may refer to the transmission of transfer instructions by users, through such electronic means as computer-to-computer interfaces or electronic terminals, that are entered into a transfer processing system by automated means. The term may also refer to the storage of data by the transfer processing system on a computer database such that the user has direct access to the data (frequently real-time) through input/output devices such as terminals. See off-line.

Optical character recognition (OCR): a technique, using special OCR machine-readable characters, by which documents (e.g. cheques, credit transfers, direct debits) are read by machines for electronic processing. See magnetic ink character recognition (MICR).

Overnight money (or day-to-day money): a loan with a maturity of one business day.

Paperless credit transfers: credit transfers that do not involve the exchange of paper documents between banks. Other credit transfers are called paper-based.

Participant/Member: a party who participates in a transfer system. This generic term refers to an institution which is identified by a transfer system (e.g. by a bank identification number) and is allowed to send payment orders directly to the system or which is directly bound by the rules governing the transfer system. See direct participant/member, indirect participant/member.

Payment: the payer's transfer of a monetary claim on a party acceptable to the payee. Typically, claims take the form of banknotes or deposit balances held at a financial institution or at a central bank.

Payment lag: the time-lag between the initiation of the payment order and its final settlement.

Payment order (or payment instruction): an order or message requesting the transfer of funds (in the form of a monetary claim on a party) to the order of the payee. The order may relate either to a credit transfer or to a debit transfer.

Payment system: a payment system consists of a set of instruments, banking procedures and, typically, interbank funds transfer systems that ensure the circulation of money.

PIN (personal identification number): a numeric code which the cardholder may need to quote for verification of identity. In electronic transactions, it is seen as the equivalent of a signature.

Point of sale (POS): this term refers to the use of payment cards at a retail location (point of sale). The payment information is captured either by paper vouchers or by electronic terminals, which, in some cases, are designed also to transmit the information. Where this is so, the arrangement may be referred to as "electronic funds transfer at the point of sale" (EFTPOS).

Position netting (or advisory netting): the netting of instructions in respect of obligations between two or more parties which neither satisfies nor discharges those original individual obligations. Also referred to as payment netting in the case of payment instructions.

Prepaid card (or payment card): a card "loaded" with a given value, paid for in advance.

Principal risk: the credit risk that a party will lose the full value involved in a transaction. In the settlement process, this term is typically associated with exchange-for-value transactions when there is a lag between the final settlement of the various legs of a transaction (i.e. the absence of delivery versus payment). Principal risk that arises from the settlement of foreign exchange transactions is sometimes called cross-currency settlement risk or Herstatt risk. See credit risk.

Provisional transfer: a conditional transfer in which one or more parties retain the right by law or agreement to rescind the transfer.

Queuing: a risk management arrangement whereby transfer orders are held pending by the originator/deliverer or by the system until sufficient cover is available in the originator's/deliverer's clearing account or under the limits set against the payer; in some cases, cover may include unused credit lines or available collateral. See also caps.

Real-time gross settlement (RTGS): a gross settlement system in which processing and settlement take place in real time (continuously).

Real-time transmission, processing or settlement: the transmission, processing or settlement of a funds or securities transfer instruction on an individual basis at the time it is initiated.

Receiver finality: analytical rather than operational or legal term used to describe the point at which an unconditional obligation arises on the part of the receiving participant in a transfer system to make final funds available to its beneficiary customer on the value date. See final settlement.

Registration: the listing of ownership of securities in the records of the issuer or its transfer agent/registrar.

Remote participant: a participant in a transfer system which has neither its head office nor any of its branches located in the country where the transfer system is based.

Remote payment: payment carried out through the sending of payment orders or payment instruments (e.g. by mail). Contrast with face-to-face payment.

Replacement cost risk (or market risk, price risk): the risk that a counterparty to an outstanding transaction for completion at a future date will fail to perform on the settlement date. This failure may leave the solvent party with an unhedged or open market position or deny the solvent party unrealised gains on the position. The resulting exposure is the cost of replacing, at current market prices, the original transaction. See also credit risk.

Respondent: see correspondent banking.

Retailer's card: a card issued by non-banking institutions, to be used in specified stores. The holder of the card has usually been granted a line of credit.

Retail transfer system: interbank funds transfer system which handles a large volume of payments of relatively low value in such forms as cheques, credit transfers, direct debits, ATM transactions and EFT at the point of sale.

Same-day funds: money balances that the recipient has a right to transfer or withdraw from an account on the day of receipt.

Securities depository (book-entry system): see central securities depository.

Sender finality: analytical rather than operational or legal term used to describe the point at which an unconditional obligation arises on the part of the initiating participant in a funds transfer system to make final payment to the receiving participant on the value date. See final settlement.

Settlement: an act that discharges obligations in respect of funds or securities transfers between two or more parties. See gross and net settlement system, net settlement, final settlement.

Settlement agent: an institution that manages the settlement process (e.g. the determination of settlement positions, monitoring the exchange of payments, etc.) for transfer systems or other arrangements that require settlement. See final settlement, settlement, settlement institution(s), multilateral net settlement system.

Settlement finality: see final settlement.

Settlement institution(s): the institution(s) across whose books transfers between participants take place in order to achieve settlement within a settlement system. See settling participant/member, settlement agent, multilateral net settlement system, bilateral net settlement system.

Settlement lag: in an exchange-for-value process, the time-lag between entering into a trade/bargain and its discharge by the final exchange of a financial asset for payment. See payment lag.

Settling participant/member: in some countries, a settling participant in a funds or securities transfer system delivers and receives funds or securities to/from other settling participants through one or more accounts at the settlement institution for the purpose of settling funds or securities transfers for the system. Other participants require the services of a settling participant in order to settle their positions. Currently in the EC direct participants are by definition also settling participants. See direct participant/member, tiering arrangement.

Settlement risk: general term used to designate the risk that settlement in a transfer system will not take place as expected. This risk may comprise both credit and liquidity risk.

Settlement system: a system in which settlement takes place.

Standing order: an instruction from a customer to his bank to make a regular payment of a fixed amount to a named creditor.

Substitution: The substitution of one party for another in respect of an obligation. In a netting and settlement context the term typically refers to the process of amending a contract between two parties so that a third party is interposed as counterparty to each of the two parties and the original contract between the two parties is satisfied and discharged. See novation.

S.W.I.F.T. (Society for Worldwide Interbank Financial Telecommunication): a cooperative organisation created and owned by banks that operates a network which facilitates the exchange of payment and other financial messages between financial institutions (including broker-dealers and securities companies) throughout the world. A S.W.I.F.T. payment message is an instruction to transfer funds; the exchange of funds (settlement) subsequently takes place over a payment system or through correspondent banking relationships.

Systemic risk: the risk that the failure of one participant in a transfer system, or in financial markets generally, to meet its required obligations will cause other participants or financial institutions to be unable to meet their obligations (including settlement obligations in a transfer system) when due.

Such a failure may cause significant liquidity or credit problems and, as a result, might threaten the stability of financial markets.

Telematics: the combined use of data-processing and data-transmission techniques.

Teller's cheque: see bank draft.

Tiering arrangement: an arrangement which may exist in a funds or securities transfer system whereby participants in one category require the services of participants in another category to exchange and/or settle their transactions. See direct, indirect and settling participant/member.

Trade date: the date on which a trade/bargain is struck.

Trade netting: a consolidation and offsetting of individual trades into net amounts of securities and money due between trading partners or among members of a clearing system. A netting of trades which is not legally enforceable is a position netting.

Trade-for-trade (gross) settlement: the settlement of individual transactions between counterparties. See gross settlement system.

Trade-for-trade settlement system: see gross settlement system.

Transfer: operationally, the sending (or movement) of funds or securities or of a right relating to funds or securities from one party to another party by (1) conveyance of physical instruments/money; (2) accounting entries on the books of a financial intermediary; or (3) accounting entries processed through a funds and/or securities transfer system. The act of transfer affects the legal rights of the transferor, transferee and possibly third parties in relation to the money balance, security or other financial instrument being transferred.

Transfer system: a generic term covering interbank funds transfer systems and exchange-for-value systems.

Travel and entertainment (charge) card: card issued by non-banks indicating that the holder has been granted a line of credit. It enables him to make purchases but does not offer extended credit, the full amount of the debt incurred having to be settled at the end of a specified period. The holder is usually charged an annual fee.

Truncation: a procedure in which the physical movement of paper payment instruments (e.g. paid cheques or credit transfers) within a bank, between banks or between a bank and its customer is curtailed or eliminated, being replaced, in whole or in part, by electronic records of their content for further processing and transmission.

Ultimate settlement: sometimes used to denote final settlement in central bank money.

Unwinding (or settlement unwind): a procedure followed in certain clearing and settlement systems in which transfers of securities or funds are settled on a net basis, at the end of the processing cycle, with all transfers provisional until all participants have discharged their settlement obligations. If a participant fails to settle, some or all of the provisional transfers involving that participant are deleted from the system and the settlement obligations from the remaining transfers are then recalculated. Such a procedure has the effect of transferring liquidity pressures and possibly losses from the failure to settle to other participants, and may, in the extreme, result in significant and unpredictable systemic risks.

Variation margin (or mark-to-market payments): the amount which is paid by a counterparty to reduce replacement cost exposures resulting from changes in market prices, following the revaluation of securities or financial instruments that are the subject of unsettled trades.

Wholesale funds transfer system: see large-value funds transfer system.

ANNEX: METHODOLOGY

Methodology used for the statistics of the Blue Book

The payment system statistics which are included in this addendum to the Blue Book have been compiled by each central bank for its own country. Various sources have been used, ranging from data included in banking association's reports to figures which were asked for directly by the central banks from a sample of banks. To the largest extent possible, EU central banks have followed a standard methodology which is detailed below. As a rule, any major divergence with it is explained in a footnote.

Table 1:

The population and the GDP figures were provided by Eurostat and the ECU exchange rates are EMI figures; tables 14 and 15 have been filled using figures provided by SWIFT. In all other tables, the figures are provided by National Central Banks.

Table 2: Settlement media used by non-banks

In accordance with monetary statistics, "*notes and coins*" represents the value of cash in circulation in the economy. It excludes the value of notes and coins kept in vaults in the central banks or in the deposit taking institutions mentioned in table 5.

"*Transferable deposits*" are defined as deposits which can be used to make cashless payments using one of the instruments mentioned in table 12 and 13. The distribution of "*transferable deposits*" between economic sectors is provided when available. The line M1 is not filled for countries which no longer calculate this monetary aggregate.

Table 3: Settlement media used by deposit taking institutions

This table includes the amount of currency which can be used by deposit-taking institutions mentioned in table 5 to effect settlement. They include holdings at the central bank and deposits in other deposit-taking institutions.

Table 4: Banknotes and coins

This table details the "*notes and coins*" item in table 2. "*Total banknotes issued*" represent the value of banknotes which belong to the liabilities of the central bank.

Table 5: Institutional framework

The two first columns of the table indicate the number of points of entry into the cashless payment system. Any institution which executes cashless payments is mentioned even if it does not hold deposits for customers (e.g. because the money transferred is bought in cash, or debited from a

sight account held in another institution). The head office of the institution is counted as one branch if it offers payment services.

The aim of the two last columns is to indicate the number of accounts on which cashless payments (see definition with table 12 and 13) can be made. The only accounts which are mentioned are those which 1) are held by deposit taking institutions for non-deposit taking institutions; and 2) can be debited directly using one of the instruments mentioned in table 12 and 13.

Banks which are foreign-owned, or subsidiaries of foreign banks are not taken into account in *"branches of foreign banks"*.

Table 7: Number of payment cards in circulation

A card which has several functions is counted in each relevant line (e.g. a Eurocheque card which can be used to withdraw cash, to make payments and to guarantee cheques is included in each of the three first main items); therefore, as indicated in the footnote, the figures should not be added.

Table 10 and 11: Transfer instructions handled by securities settlement systems

These tables aim at presenting the major securities settlement systems. Therefore, the total volume or value of the transactions mentioned in the tables are not necessarily representative of the securities market of the country.

National Central Banks, which prepared these tables for the first time, experienced difficulties in gathering the figures. The coverage of these statistics is expected to improve next year. Any cross-border comparisons should be made with great care.

Table 12 and 13: Indicators of use of various payment instruments

These tables are (at least) partly estimated.

As a rule, funds transfer in which the originator and the beneficiary are one and the same are excluded. In particular, any instrument which is used by banks' customers to get cash is not included (e.g. cheques used to get cash or ATM withdrawals - although these operations might be included in tables 8 and 9 whose focus is different). However, for practical reasons, it has rarely been possible to exclude funds transfers from and to accounts held under the same name, either in the same institution or between two institutions; footnotes at the bottom of the tables indicate whether or not this distinction has been possible.

All payments instruments which involve cashless interbank settlements are included in the statistics, even if the originator or the beneficiary brought or withdrew the amount of the payment in cash.

No distinction is made between inter-bank item (when the payer and the payee have accounts in two different banks), or intra-branch item (when they have accounts in the same branch).

To avoid double countering in the country of the originator, and in the country of the beneficiary, cross-border payments are counted in the country of the originator. No distinction is made between payments in foreign and domestic currencies.

Specific items

Traveller's cheques, Eurocheques and bankers' drafts are included in the *cheques* item.

Although payments made with retailers cards or prepaid cards should theoretically be included with cashless payments, data concerning these instruments are rarely available. Therefore, they are not included *card payments*.

The distinction between *paper-based and paperless credit transfers* is based on the interbank exchange: credit transfer orders which are exchanged paperless between banks are considered paperless even if the originator and/or the beneficiary filled or received a piece of paper.

Credit transfers include money orders and transfers to and from the account holding institutions and its customers (e.g. interest or fee payments are included).

Commercial bills are included if fund transfers can be made on the basis of them, without using another payment media.

