



EUROPEAN CENTRAL BANK

PAYMENT SYSTEMS IN THE
EUROPEAN UNION

ADDENDUM
INCORPORATING
1997 FIGURES

January 1999

© **European Central Bank, 1999**

Postfach 16 03 19, D-60066 Frankfurt am Main

ISBN 92-9181-030-4

All rights reserved. Photocopying for educational and non-commercial purposes permitted provided that the source is acknowledged.

Contents

Introduction		v
Statistical data		
	1. Belgium	1
	2. Denmark	13
	3. Germany	23
	4. Greece	35
	5. Spain	45
	6. France	57
	7. Ireland	69
	8. Italy	79
	9. Luxembourg	91
	10. Netherlands	99
	11. Austria	109
	12. Portugal	121
	13. Finland	131
	14. Sweden	143
	15. United Kingdom	153
	16. Comparative tables	167
	17. Comparative tables:	189
	Direct participation and access criteria in EU IFTS	
	Risk control measures in EU large value net settlement systems	
Annexes		
	1. Methodology for the statistical data	197
	2. Glossary	205

In accordance with Community practice, countries are listed using the alphabetical order of the national languages.

Data used in this Addendum are as of end-1997 unless otherwise indicated.

Convention used in the tables:

“-” Nil;

“n.a.” Not available or not applicable;

“neg.” Negligible.

Introduction

In April 1996 the European Monetary Institute published the second edition of a descriptive guide to the payment and securities settlement systems operating in the Member States of the European Union (EU) on both a domestic and a cross-border basis, the so-called “Blue Book”. Whilst the intention is to update the descriptive part of the Blue Book every four years, the statistical data are being updated every year.

This “Blue Book Addendum” provides the update of the country data and comparative tables to include 1997 figures. The data are presented as time series in order to facilitate the analysis of recent developments. Where possible, these tables follow the presentation used in the report published in December 1993 by the Bank for International Settlements on “Payment Systems in the Group of Ten Countries” (the so-called “Red Book”). However, some tables have been modified and extended in order to reflect the more homogenous situation in Europe.

Annex 1 provides a methodology for the statistical data and Annex 2 is the glossary as published in the 1996 Blue Book.

Belgium

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	10,084.0	10,116.0	10,137.0	10,157.0	10,181.0
Gross domestic product (BEF billions)	7,316.6	7,678.1	7,936.0	8,305.0	8,660.6
Exchange rate vis-à-vis ECU ⁽¹⁾	40.4713	39.6565	38.5519	39.2986	40.5332

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	1993	1994	1995	1996	1997
					BEF billions
Notes and coins	424.7	396.3	416.2	435.8	441.3
Transferable deposits ⁽¹⁾	1,008.2	1,066.9	1,111.3	1,150.1	1,225.5
Narrow money supply (M1)	1,432.9	1,463.2	1,527.5	1,585.9	1,666.8
Transferable deposits in foreign currencies	102.7	87.3	123.4	167.9	203.7
Outstanding value on electronic money schemes	-	-	0.02	0.11	0.85
of which:					
on card-based products ⁽²⁾	-	-	0.02	0.11	0.85
on network-based products	-	-	-	-	-

(1) In local currency only.

(2) The electronic purse scheme "PROTON" started in February 1995.

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	1993	1994	1995	1996	1997
					BEF billions
Required reserves held at central bank	-	-	-	-	-
Free reserves held at central bank ⁽¹⁾	1.41	2.05	1.86	2.38	1.19
Transferable deposits at other institutions ⁽²⁾	103.5	113.1	128.9	164.7	182.1

(1) Average of end-of-month figures.

(2) Payment means held by Belgian credit institutions with other credit institutions (sight accounts, BEF and foreign currencies, in Belgium).

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

	1993	1994	1995	1996	1997
					BEF billions
Total banknotes issued	440.6	412.2	445.8	464.7	478.6
<i>of which:</i>					
BEF 10,000	80.6	182.6	206.1	225.7	220.1
BEF 5,000 ⁽¹⁾	220.8	6.1	0.8	-	-
BEF 2,000 ⁽²⁾	-	100.3	124.2	134.6	159.2
BEF 1,000	111.9	95.6	86.2	75.0	68.6
BEF 500	12.9	13.1	13.5	13.6	14.3
BEF 200 ⁽³⁾	-	-	-	4.9	5.6
BEF 100	14.4	14.5	15.0	10.9	10.8
Total coins issued	18.7	19.2	20.1	21.5	22.5
<i>of which:</i>					
BEF 500	0.2	0.2	0.2	0.2	0.2
BEF 250	-	0.1	0.1	0.1	0.1
BEF 50	7.6	7.7	8.1	8.7	9.1
BEF 20	6.8	6.9	7.2	7.6	7.9
BEF 5	2.6	2.7	2.8	3.0	3.2
BEF 1	1.2	1.3	1.4	1.6	1.7
BEF 0.5	0.3	0.3	0.3	0.3	0.3
Notes and coins held by credit institutions	34.6	35.1	49.7	50.4	59.8
Notes and coins in circulation outside credit institutions	424.7	396.3	416.2	435.8	441.3

(1) The BEF 5,000 banknotes are no longer legal tender from 1 December 1994.

(2) The issuance of the BEF 2,000 banknote started on 22 April 1994.

(3) The issuance of the BEF 200 banknote started on 25 January 1996.

Table 5**Institutional framework***(end of 1997)*

Categories	Number of institutions	Number of branches	Number of accounts (thousands)	Value of accounts (BEF billions)
Central bank	1	14	2	0.2
Credit institutions ⁽¹⁾	134	7,434	11,207	1,143.7
Postcheque	1	1,593	1,277	81.6
TOTAL	136	9,041	12,486	1,225.5
Branches of foreign banks	40	n.a.	n.a.	n.a.
<i>of which EC-based</i>	25	n.a.	n.a.	n.a.

(1) Number of branches: Non-full-size branches excluded.

Table 6**Cash dispensers, ATMs and EFTPOS terminals***(end of year)*

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	15	15	15	15	15
Number of machines	2819	3,170	3,654	4,207	5,007
Volume of transactions (millions)	115.65	132.33	144.93	153.80	159.58
Value of transactions (BEF billions)	458.18	533.17	589.28	637.71	673.29
EFTPOS terminals					
Number of networks	2	2	2	2	2
Number of points of sale ⁽¹⁾	42,903	49,983	55,883	60,664	63,974
Volume of transactions (millions)	157.81	181.96	211.45	243.19	276.68
Value of transactions (BEF billions)	344.43	412.67	482.91	564.84	646.24
Electronic money loading machines ⁽²⁾					
Number of machines	-	-	311	1,425	6,438
Volume of transactions (thousands)	-	-	121	267	1,776
Value of transactions (millions)	-	-	156	354	2,308
Electronic money purchase terminals					
Number of machines	-	-	1,109	5,504	21,263
Volume of transactions (thousands) ⁽³⁾	-	-	737	1,534	10,190
Value of transactions (millions)	-	-	139	247	1,591

(1) The number of machines stood at 52,984 in 1993; 63,765 in 1994; 72,892 in 1995; 81,331 in 1996 and 85,727 in 1997.

(2) The electronic purse scheme "PROTON" started in February 1995.

(3) Collected payments.

Table 7**Number of payment cards in circulation ⁽¹⁾***(end of year)*

	1993	1994	1995	1996	1997
					thousands
Cards with a cash function	8,316	8,912	9,461	10,591	11,361
Cards with a debit/credit function	8,431	8,912	9,461	10,591	11,361
<i>of which:</i>					
<i>cards with a debit function</i>	6,434	6,780	7,190	8,141	8,748
<i>cards with a credit function ⁽²⁾</i>	1,997	2,132	2,271	2,450	2,613
Cards with a cheque guarantee function	4,856	4,660	4,645	4,366	4,767
Retailer cards	1,002	1,089	1,221	1,372	1,428
Electronic money cards ⁽³⁾	-	-	30	761	3,430

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

(2) Most cards with a credit function are of the delayed debit type.

(3) The electronic purse scheme "PROTON" started in February 1995.

Table 8

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

	1993	1994	1995	1996	1997
					millions
ELLIPS ⁽¹⁾				0.21	0.96
Clearing house	22.52	15.88	14.45	11.57	6.78
Securities clearing balances	neg.	neg.	neg.	neg.	-
Postal drafts and money orders	2.19	3.76	3.72	3.28	2.85
Debits	4.82	6.25	5.11	4.14	3.57
Credit transfers	10.56	5.87	5.62	4.15	0.36
Province ⁽²⁾	4.95	-	-	-	-
Others	0	-	-	-	-
CEC	740.25	784.33	826.21	867.92	880.60
Direct debits	61.94	66.43	71.95	76.11	84.86
<i>of which:</i>					
<i>ordinary direct debits</i>	59.89	64.07	69.37	73.27	81.56
<i>refunds</i>	0.51	0.52	0.63	0.67	0.65
<i>unpaid direct debits</i>	1.54	1.84	1.95	2.17	2.65
Other debit operations	306.33	322.14	337.06	351.33	334.43
<i>of which:</i>					
<i>truncated cheques</i>	91.35	84.76	77.47	72.08	65.79
<i>ATMs and POS</i>	214.61	237.02	259.21	278.84	268.24
<i>unpaid cheques</i>	0.37	0.36	0.38	0.41	0.40
Credit transfers	371.21	394.64	416.03	439.61	458.38
<i>of which:</i>					
<i>credit transfers</i>	308.10	322.90	337.03	352.67	368.72
<i>counterparty postal</i>	3.34	2.97	2.70	2.48	2.17
<i>counterparty ATM-POS</i>	40.09	49.26	57.01	64.96	67.75
<i>inpayment transfers</i>	19.68	19.51	19.30	19.50	19.74
Large-value or urgent transfers	0.77	1.12	1.17	0.87	1.84
Others ⁽³⁾	-	-	-	-	1.09

(1) ELLIPS, the Belgian RTGS system went live on 24 September 1996.

(2) Since 1994, the volume of transactions in the local branches of the Clearing House has been split up and classified in the relevant groups.

(3) Bills of exchange.

Table 9

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

	1993	1994	1995	1996	BEF billions 1997
ELLIPS ⁽¹⁾				72,533	342,688
Clearing house	298,952	337,567	334,353	243,142	5,413
Securities clearing balances ⁽²⁾	8,651	11,010	12,522	10,092	-
Postal drafts and money orders	42	67	40	60	62
Debits	18,632	16,862	14,887	15,229	5,031
Credit transfers	263,440	309,628	306,904	217,761	320
Province ⁽³⁾	8,174	-	-	-	-
Others	13	-	-	-	-
CEC	21,827	24,512	26,588	26,662	18,460
Direct debits	367	407	440	478	600
<i>of which:</i>					
<i>ordinary direct debits</i>	350	387	419	455	572
<i>refunds</i>	5	5	6	6	7
<i>unpaid direct debits</i>	12	15	15	17	21
Other debit operations	1,787	1,830	1,859	1,883	1,884
<i>of which:</i>					
<i>truncated cheques</i>	1,166	1,148	1,123	1,091	1,044
<i>ATMs and POS</i>	610	671	724	779	828
<i>unpaid cheques</i>	11	11	12	13	12
Credit transfers	9,733	10,255	10,373	10,583	10,667
<i>of which:</i>					
<i>credit transfers</i>	8,937	9,386	9,438	9,592	9,626
<i>counterparty postal</i>	43	39	37	35	30
<i>counterparty ATM-POS</i>	599	663	719	773	828
<i>inpayment transfers</i>	154	167	179	183	183
Large-value or urgent transfers	9,940	12,020	13,916	13,718	5,146
Others ⁽⁴⁾	-	-	-	-	163

(1) ELLIPS, the Belgian RTGS system went live on 24 September 1996.

(2) As from 1 October 1996 end of day balances of the participants are directly registered on their accounts with the NBB.

(3) Since 1994, the value of transactions in the local branches of the Clearing House has been split up and classified in the relevant groups.

(4) Bills of exchange.

Table 10

Participants in securities settlement systems

(end of 1997)

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
BNB Clearing	183	168	183
Banks	112	105	112
Stockbrokers	51	51	51
ICSD (Cedel / Euroclear)	2	2	2
Others:			
- Ministry of Finance	2	-	2
- Public bodies	16	10	16
CIK	140		
Banks	68	-	68
Stockbrokers	63	-	63
Others:			
- CSD (F, CH, NL, DE)	4	-	-
- Local custodian for Luxembourg	1	-	-
CIK customers			
- Others	4	-	-
BELFOX			
Banks	23	17	-
Stockbrokers	17	10	-

Table 11

Transfer instructions handled by securities settlement systems:

volume of transactions

	1993	1994	1995	1996	1997
BNB Clearing	147,180	188,258	198,608	229,798	199,807
CIK (millions)	566	664	485	735	770
BELFOX ⁽¹⁾	1,408,683	1,915,483	2,164,527	2,635,945	2,527,665

(1) Total number of contracts (options and futures).

Table 12

Transfer instructions handled by securities settlement systems:

value of transactions

	1993	1994	1995	1996	BEF billions 1997
BNB Clearing	35,805	66,148	85,050	92,937	103,426
CIK	494	554	547	809	1,229
BELFOX ⁽¹⁾	1.7	4.4	5.8	9.4	13.4

(1) Premium turnover (options).

Table 13

Nominal values registered by securities settlement systems

(end of year)

	1993	1994	1995	1996	BEF billions 1997
BNB Clearing	4,781	6,450	7,485	8,987	9,491
CIK	n.a.	n.a.	n.a.	n.a.	n.a.
BELFOX	-	-	-	-	-

Table 14

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

	1993	1994	1995	1996	1997
					millions
Cheques issued ⁽¹⁾	139.1	124.1	117.1	109.7	95.8
Payments by debit and credit cards ⁽²⁾	169.2	190.9	218.1	249.3	281.6
Paper-based credit transfers ⁽³⁾	10.6	5.9	5.6	4.2	0.3
- customer initiated	3.2	1.8	1.7	1.3	0.3
- interbank	7.4	4.1	3.9	2.9	-
Paperless credit transfers ^{(3) (4)}	583.7	640.9	661.2	690.4	697.0
- customer initiated	583.7	640.9	661.2	690.2	695.9
- interbank	-	-	-	0.2	1.1
Direct debits	88.5	100.1	104.5	113.5	117.9
Electronic money	-	-	0.7	1.5	10.2
of which:					
Payments by card-based products	-	-	0.7	1.5	10.2
Payments by network-based products	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	991.1	1,061.9	1,107.2	1,168.6	1,202.8

(1) Postal drafts included.

(2) Payments by retailer cards included.

(3) Revised figures and methodology from 1993 onwards.

(4) In-payment transfers included.

Table 15

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

	1993	1994	1995	1996	1997
					BEF billions
Cheques issued ⁽¹⁾	13,246	13,693	12,287	11,492	11,664
Payments by debit and credit cards ⁽²⁾	388	443	508	591	673
Paper-based credit transfers ⁽³⁾	263,440	309,628	306,904	217,761	320
- customer initiated	31,612	37,155	36,828	26,131	320
- interbank	231,828	272,473	270,076	191,630	-
Paperless credit transfers ^{(3) (4)}	27,097	36,829	50,209	131,814	390,908
- customer initiated	27,097	36,829	50,209	68,155	93,217
- interbank	-	-	-	63,659	297,691
Direct debits	787	885	979	1,102	1,187
Electronic money	-	-	0.1	0.3	1.6
of which:					
Payments by card-based products	-	-	0.1	0.3	1.6
Payments by network-based products	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	304,958	361,478	370,887	362,760	404,754

(1) Postal drafts included.

(2) Payments by retailer cards included.

(3) Revised figures and methodology from 1993 onwards.

(4) In-payment transfers included.

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	68	73	72	75	76
<i>of which:</i>					
<i>members</i>	33	34	32	32	32
<i>sub-members</i>	33	36	37	37	39
<i>participants</i>	2	3	3	6	5
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	19,828,726	21,233,594	23,796,106	26,928,329	31,355,971
<i>of which:</i>					
<i>category I</i>	6,145,021	6,331,292	6,660,281	6,845,391	7,170,089
<i>category II</i>	2,697,142	5,350,057	5,606,480	6,307,048	7,009,454
<i>sent/received to/from domestic users</i>	2,488,985	3,907,203	4,452,493	5,283,148	6,138,563
Total messages received	17,234,167	18,910,023	21,003,109	24,324,277	27,950,457
<i>of which:</i>					
<i>category I</i>	3,614,711	5,835,044	6,197,728	6,441,304	6,665,892
<i>category II</i>	1,518,477	4,198,073	4,457,184	5,202,993	5,771,831
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

Denmark

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	5,189.0	5,205.0	5,228.0	5,261.5	5,284.0
Gross domestic product: (DKK billions)	874.9	928.6	970.8	991.5	1,047.7
Exchange rate vis-à-vis ECU ⁽¹⁾	7.5936	7.5435	7.3280	7.3593	7.4836

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	1993	1994	1995	1996	DKK billions 1997
Notes and coins	25.78	28.95	30.59	30.90	33.20
Transferable deposits ⁽¹⁾	246.40	244.54	253.00	278.44	295.14
<i>of which held by:</i>					
<i>households</i> ⁽²⁾	113.48	115.84	124.00	135.79	149.60
<i>corporate sector</i> ⁽³⁾	117.34	113.92	113.36	127.32	133.45
<i>other (public sector)</i>	15.58	14.78	15.64	15.34	12.09
Outstanding value on electronic money schemes ⁽⁴⁾	4.00	7.00	15.00	21.00	15.12
<i>of which:</i>					
<i>on card-based products</i> ⁽⁴⁾	4.00	7.00	15.00	21.00	15.12
<i>on network-based products</i>	-	-	-	-	-

(1) Sight deposits held by residents in DKK and in foreign currencies.

(2) Non-business sector.

(3) Business sector.

(4) DKK millions.

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	1993	1994	1995	1996	DKK billions 1997
Required reserves held at central bank	-	-	-	-	-
Deposits on current accounts	3.39	2.82	2.02	7.90	18.45
Transferable deposits at other institutions	n.a.	n.a.	n.a.	n.a.	n.a.

DENMARK

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

	DKK billions				
	1993	1994	1995	1996	1997
Total banknotes issued	26.88	29.71	31.43	33.19	35.08
<i>of which:</i>					
DKK 1,000	15.39	17.29	18.24	19.28	19.59
DKK 500	3.98	4.69	5.31	5.82	6.56
DKK 200	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1.62
DKK 100	6.50	6.65	6.76	6.93	6.12
DKK 50	0.67	0.70	0.74	0.78	0.80
DKK 20	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
DKK 10	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other ⁽¹⁾	0.34	0.38	0.39	0.38	0.40
Total coins issued ⁽²⁾	2.78	2.98	3.22	3.43	3.63
<i>of which:</i>					
DKK. 20	0.93	1.01	1.12	1.21	1.30
DKK 10	0.61	0.66	0.70	0.74	0.77
DKK 5	0.40	0.42	0.44	0.46	0.48
DKK 2	0.17	0.21	0.25	0.28	0.31
DKK 1	0.38	0.38	0.39	0.39	0.40
50 øre	0.09	0.11	0.11	0.12	0.13
25 øre	0.14	0.15	0.15	0.16	0.16
Notes and coins held by credit institutions	3.88	3.74	4.06	5.01	5.51
Notes and coins in circulation outside credit institutions	25.78	28.95	30.59	31.60	33.20

(1) Special banknotes in circulation in the Faroe Islands. From 1993 the figure also includes DKK 20 and DKK 10 banknotes.

(2) Includes DKK 200 commemorative coins and DKK 2 coins in circulation until end-1959.

Table 5**Institutional framework***(end of 1997)*

Categories	Number of institutions	Number of branches	Number of accounts (thousands)	Value of accounts (DKK billions)
Central bank	1	-	-	-
Commercial banks and savings banks	170	2,348	n.a.	n.a.
Co-operative and rural banks	26	26	n.a.	n.a.
Post office (Giro Bank)	0	1,165	n.a.	n.a.
TOTAL	197	3,539	8,632	318
Branches of foreign banks	14	14	n.a.	n.a.
<i>of which EC-based</i>	13	13	n.a.	n.a.

Table 6**Cash dispensers, ATMs and EFTPOS terminals***(end of year)*

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	1	1	1	1	1
Number of machines	561	741	1,081	1,257	1,338
Volume of transactions (millions)	n.a.	n.a.	n.a.	n.a.	n.a.
Value of transactions (DKK billions)	n.a.	n.a.	n.a.	n.a.	n.a.
EFTPOS terminals					
Number of networks	1	1	1	1	1
Number of points of sale ⁽¹⁾	21,778	24,066	26,214	41,911	63,000
Volume of transactions (millions)	172.3	207.7	240.9	274.4	304.9
Value of transactions (DKK billions)	55.75	70.19	82.76	95.76	106.07
Electronic money loading machines					
Number of machines	-	-	2	2	3
Volume of transactions (thousands)	-	-	0.1	0.1	n.a.
Value of transactions (millions)	-	-	0.1	0.1	n.a.
Electronic money purchase terminals					
Number of machines	130	403	586	2,413	5,230
Volume of transactions (thousands)	184	963	2,138	3,657	5,450
Value of transactions (millions)	1	8	19	34	54

(1) Number of machines.

Table 7**Number of payment cards in circulation ⁽¹⁾***(end of year)*

	1993	1994	1995	1996	1997
					thousands
	1993	1994	1995	1996	1997
Cards with a cash function	2,709	2,825	2,941	3,073	3,082
Cards with a debit/credit function	2,709	2,825	2,941	3,073	3,082
<i>of which:</i>					
<i>cards with a debit function</i>	2,543	2,658	2,765	2,889	2,825
<i>cards with a credit function</i>	166	167	176	184	193
Cards with a cheque guarantee function	132	106	62	71	54
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.
Electronic money cards	37	150	295	390	n.a.

(1) 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

	1993	1994	1995	1996	1997
					millions
DN Inquiry and Transfer system	0.379	0.347	0.349	0.426	0.369
DN Retail Clearing	460.329	518.646	595.649	605.007	656.027
Cheques	91.234	85.868	73.654	67.075	61.743
Direct debits	68.554	75.285	86.966	96.423	105.129
Paperless credit transfers	122.785	143.619	187.059	159.268	175.599
Payments by debit cards	172.252	207.722	240.865	274.364	304.862
<i>of which:</i>					
<i>By EFTPOS</i>	134.321	161.833	189.412	217.504	243.972
<i>By paperslip</i>	37.931	45.889	51.453	22.849	16.504
Payments by credit cards	5.504	6.152	7.105	7.877	8.694

Table 9

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

	1993	1994	1995	1996	1997
					DKK billions
DN Inquiry and Transfer system	25,238	24,153	18,875	16,642	18,119
DN Retail Clearing	2,553	2,831	2,854	3,038	3,250
Cheques	1,128	1,155	1,018	959	931
Direct debits	180	197	227	223	241
Paperless credit transfers	1,185	1,403	1,522	1,754	1,965
Payments by debit cards	56	71	82	96	106
<i>of which:</i>					
<i>By EFTPOS</i>	43	53	62	84	100
<i>By paperslip</i>	13	18	20	12	6
Payments by credit cards	4	5	5	6	7

Table 10

Participants in securities settlement systems
(end of 1997)

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
VP	95	173	95
Banks	79	147	80
Stockbrokers	9	9	9
Cedel / Euroclear	1	1	1
Mortgage credit institutions	6	16	5

Table 11

Transfer instructions handled by securities settlement systems:
volume of transactions

	1993	1994	1995	1996	1997
					millions
VP					
Government securities	3.8	3.9	3.5	3.5	3.3
Bonds)))))
Shares)))))
CDs	n.a.	n.a.	n.a.	n.a.	n.a.
Futures	n.a.	n.a.	n.a.	n.a.	n.a.
Options	n.a.	n.a.	n.a.	n.a.	n.a.
Others	n.a.	n.a.	n.a.	n.a.	n.a.

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions

	1993	1994	1995	1996	1997
					DKK billions
VP					
Government securities	15,452	17,478	17,754	21,229	23,276
Bonds)))))
Shares	70	76	68	98	135
CDs	n.a.	n.a.	n.a.	n.a.	n.a.
Futures	n.a.	n.a.	n.a.	n.a.	n.a.
Options	n.a.	n.a.	n.a.	n.a.	n.a.
Others	n.a.	n.a.	n.a.	n.a.	n.a.

Table 13

Nominal values registered by securities settlement systems
(end of year)

	1993	1994	1995	1996	1997
					DKK billions
VP					
Government securities	1,553	1,543	1,627	1,710	1,785
Bonds)))))
Shares	68	74	78	89	110
CDs	n.a.	n.a.	n.a.	n.a.	n.a.
Others	n.a.	n.a.	n.a.	n.a.	n.a.

DENMARK

Table 14

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

	millions				
	1993	1994	1995	1996	1997
Cheques issued	117.6	107.5	93.5	84.5	76.6
<i>of which truncated</i>	117.6	107.5	93.5	84.5	76.6
Payments by debit and credit cards	177.8	213.9	248.0	282.2	313.6
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>	0.4	0.3	0.3	0.4	0.4
Direct debits	68.6	75.3	87.0	96.4	105.1
Electronic money	0.2	1.0	2.1	3.7	5.5
<i>of which:</i>					
<i>Payments by card-based products</i>	0.2	1.0	2.1	3.7	5.5
<i>Payments by network-based products</i>	-	-	-	-	-
TOTAL	364.2	397.7	430.6	466.8	500.8

Table 15

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

	DKK billions				
	1,993	1994	1995	1996	1997
Cheques issued	1,437	1,473	1,276	1,186	1,259
<i>of which truncated</i>	1,437	1,473	1,276	1,186	1,259
Payments by debit and credit cards	60	76	87	102	113
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>	25,238	24,153	18,875	16,642	18,119
Direct debits	180	197	227	223	241
Electronic money	1	8	19	34	54
<i>of which:</i>					
<i>Payments by card-based products</i>	1	8	19	34	54
<i>Payments by network-based products</i>	-	-	-	-	-
TOTAL	26,916	25,907	20,484	18,187	19,786

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	38	35	36	39	43
<i>of which:</i>					
<i>members</i>	32	30	31	33	34
<i>sub-members</i>	6	5	5	6	8
<i>participants</i>	-	-	-	-	1
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	6,527,033	6,586,912	7,180,779	7,797,385	8,664,841
<i>of which:</i>					
<i>category I</i>	1,751,452	2,021,197	2,359,033	2,578,542	2,910,867
<i>category II</i>	2,206,205	2,087,615	2,118,840	2,234,460	2,436,291
<i>sent/received to/from domestic users</i>	990,036	1,002,745	1,053,617	1,132,180	1,226,964
Total messages received	5,744,866	5,911,734	6,397,247	6,929,831	7,892,844
<i>of which:</i>					
<i>category I</i>	1,776,326	1,928,935	2,062,300	2,242,872	2,457,573
<i>category II</i>	1,307,152	1,331,041	1,400,163	1,511,502	1,583,669
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

Germany

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	81,180.0	81,423.0	81,662.0	81,896.0	82,061.0
Gross domestic product (DEM billions)	3,158.1	3,320.4	3,457.4	3,541.5	3,641.7
Exchange rate vis-à-vis ECU ⁽¹⁾	1.9364	1.9245	1.8738	1.9095	1.9644

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	DEM billions				
	1993	1994	1995	1996	1997
Notes and coins	212.0	225.9	237.5	246.8	247.0
Transferable deposits	527.8	541.1	580.8	676.8	691.1
<i>of which held by:</i>					
<i>households</i>	327.3	333.1	352.0	393.8	413.8
<i>corporate sector</i>	158.8	174.7	197.3	246.2	245.4
<i>other</i>	41.7	33.3	31.5	36.8	31.9
Narrow money supply (M1)	726.3	764.1	816.1	916.9	938.0
Outstanding value on electronic money schemes	-	-	-	n.a.	0.1
<i>of which:</i>					
<i>on card-based products</i>	-	-	-	n.a.	0.1
<i>on network-based products</i>	-	-	-	n.a.	n.a.

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	DEM billions				
	1993	1994	1995	1996	1997
Required reserves held at central bank ⁽¹⁾	59.6	43.6	36.5	38.7	41.0
Free reserves held at central bank	0.8	0.8	0.8	0.8	0.7
Transferable deposits at other institutions	380.2	342.8	363.9	401.1	427.6

(1) 1992 to 1994 without deductible cash balances.

GERMANY

Table 4

Banknotes and coins

(total value, end of year) ⁽¹⁾

	1993	1994	1995	1996	1997
					DEM billions
Total banknotes issued	224.2	236.1	248.4	260.4	260.7
of which:					
DEM 1,000	68.5	75.0	81.1	86.6	88.5
DEM 500	24.3	25.7	26.1	27.8	27.7
DEM 200	11.6	11.3	10.8	10.1	9.3
DEM 100	86.8	90.7	95.9	100.1	99.5
DEM 50	20.3	20.4	21.1	21.9	21.6
DEM 20	7.7	7.9	8.1	8.5	8.6
DEM 10	4.7	4.8	5.0	5.1	5.2
DEM 5	0.3	0.3	0.3	0.3	0.3
Total coins issued	14.4	14.8	15.1	15.4	15.6
of which:					
DEM 10	2.0	2.2	2.3	2.4	2.5
DEM 5	5.4	5.5	5.6	5.7	5.7
DEM 2	2.1	2.1	2.2	2.2	2.3
DEM 1	2.2	2.3	2.3	2.3	2.3
DEM 0.50	1.1	1.1	1.1	1.1	1.1
DEM 0.10	0.9	1.0	1.0	1.0	1.0
DEM 0.05	0.3	0.3	0.3	0.3	0.3
DEM 0.02	0.2	0.1	0.1	0.1	0.2
DEM 0.01	0.2	0.2	0.2	0.2	0.2
Notes and coins held by credit institutions	26.7	25.0	26.0	28.9	29.2
Notes and coins in circulation outside credit institutions	212.0	225.9	237.5	246.8	247.0

(1) Differences between sums and individual figures due to rounding.

Table 5

Institutional framework

(end of 1997)

Categories	Number of institutions	Number of branches	Number of accounts (thousands) ⁽¹⁾	Value of accounts (DEM billions)
Central bank ⁽²⁾	1	164	36	1.3
Commercial banks ⁽³⁾	375	23,548	20,500	278.1
Savings banks	611	19,179	37,855	266.8
Co-operative and rural banks	2,422	16,804	22,400	145.0
TOTAL	3,409	59,695	80,791	691.2
Branches of foreign banks	75	51	n.a.	3.1

(1) Partly estimated.

(2) As a legal entity, the Deutsche Bundesbank comprises the Central Office (in Frankfurt am Main) and nine Land Central Banks in addition to 163 branches.

(3) Including mortgage banks, instalment sales with special functions and Deutsche Postbank AG (fully fledged credit institution since 1 January 1995).

Table 6**Cash dispensers, ATMs and EFTPOS terminals ⁽¹⁾**

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	4	4	4	4	4
Number of machines	25,000	29,400	35,700	37,600	41,397
Volume of transactions (millions)	n.a.	935.0	1,100.0	1,251.8	n.a.
Value of transactions (DEM billions)	n.a.	238.5	310.0	348.4	n.a.
EFTPOS terminals					
Number of networks ⁽²⁾	18	18	19	19	22
Number of machines ⁽²⁾	28,000	62,500	70,048	115,000	162,794
Volume of transactions (millions) ⁽³⁾	69.1	104.0	149.4	214.2	225.8
Value of transactions (DEM billions) ⁽³⁾	6.2	10.8	20.5	32.7	29.0
Electronic money loading machines ⁽⁴⁾					
Number of machines	-	-	-	75	20,000
Volume of transactions (thousands)	-	-	-	80	1,600
Value of transactions (millions)	-	-	-	10.3	n.a.
Electronic money purchase terminals ⁽⁴⁾					
Number of machines	-	-	-	1,000	50,000
Volume of transactions (thousands)	-	-	-	220	4,200
Value of transactions (millions)	-	-	-	5.7	85.0

(1) Partly estimated.

(2) From 1993 onwards, "electronic cash" and "POZ procedures" only.

(3) From 1993 onwards, "electronic cash" and "POZ procedures" only. In 1992 "electronic cash" and other debit card procedures. In 1997 "electronic cash" procedures only.

(4) In 1996 use of the so-called "Geldkarte" only in the pilot region Ravensburg/Weingarten.

Table 7**Number of payment cards in circulation ⁽¹⁾**

(end of year)

	1993	1994	1995	1996	1997
					thousands
Cards with a cash function	n.a.	n.a.	n.a.	n.a.	n.a.
Cards with a debit/credit function	44,842	47,353	74,337	80,454	85,200
<i>of which:</i>					
<i>cards with a debit function ⁽²⁾</i>	35,901	37,113	62,597	66,914	71,000
<i>delayed debit cards</i>	8,941	10,240	11,740	13,540	14,200
<i>cards with a credit function ⁽³⁾</i>	n.a.	n.a.	n.a.	n.a.	n.a.
Cards with a cheque guarantee function	35,901	37,113	38,479	39,937	41,720
Retailer cards	n.a.	4,500	4,800	4,900	5,000
Electronic money cards ⁽⁴⁾	-	-	-	22,000	35,000

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

(2) Eurocheque cards, eligible for cash and debit functions, if they are issued with a Personal Identification Number (PIN) and from 1995 on including bank customer cards.

(3) Most of the so-called "credit cards" do not have a credit option (the periodic invoice has to be paid immediately after receipt). Therefore "credit cards" appear under "delayed debit cards".

(4) In 1996 only in the pilot region Ravensburg/Weingarten.

Table 8

Payment instructions handled by selected interbank funds transfer systems:
volume of transactions ⁽¹⁾

	1993	1994	1995	1996	1997
	millions				
Retail payments	2,613.5	2,355.1	2,272.2	2,276.1	2,244.9
Maschinell-optische Beleglesung (MAOBE) ⁽²⁾	393.5	248.0	115.3	77.9	27.7
<i>Collection items</i>	155.5	86.0	26.7	20.2	16.8
<i>Credit transfers</i>	238.0	162.0	88.6	57.7	10.9
Belegloser Datenträgeraustausch (DTA) ⁽³⁾	2,220.0	2,107.1	2,156.9	2,198.1	2,217.2
<i>Collection items</i>	1,702.2	1,496.9	1,499.1	1,473.3	1,469.9
<i>Credit transfers</i>	517.8	610.2	657.8	724.8	747.3
Large-value payments	483.8	477.6	33.1	30.0	33.9
Gross-settlement procedures	56.5	34.3	13.6	10.3	11.2
Eiliger Zahlungsverkehr (EIL-ZV) ⁽⁴⁾	3.4	4.0	5.5	7.2	10.6
Platzüberweisungsverkehr ⁽⁵⁾	53.1	30.3	8.1	3.1	0.6
Net settlement procedures	427.3	443.3	19.5	19.7	22.7
Konventionelle Abrechnung ⁽⁶⁾	416.4	430.6	1.7	1.0	0.3
<i>Collection items (conventional)</i> ⁽⁷⁾	95.4	150.8	0.7	0.5	0.2
<i>Local credit transfers (conventional)</i> ⁽⁷⁾	321.0	279.8	1.0	0.5	0.1
Elektronische Abrechnung Frankfurt (EAF 2)	10.9	12.7	17.8	18.8	22.4

(1) This table does not include figures relating to IFTS which are not operated by the Deutsche Bundesbank.

(2) Machine-optical voucher reading, excluding payments submitted in a paper-based form which were converted and passed on in a paperless form by the Bank's regional computer centres/payment units (BSE/GSE cheques and EZÜ/BZÜ credit transfers).

(3) Paperless exchange of data media, including payments submitted in a paper-based form which were converted and passed on in a paperless form by the Bank's regional computer centres/payment units (BSE/GSE cheques and EZÜ/BZÜ credit transfers).

(4) EIL-ZV (express electronic credit transfer system).

(5) Express paper-based local credit transfer system. Reduction due to shift caused by conversion obligation: previous paper-based payments shifted to EIL-ZV and DTA. System was closed down end of May 1997.

(6) Daily local clearing system.

(7) Statistical recording changed in 1995: settled delivery envelopes (clearing items) instead of individual payments therein.

Table 9

Payment instructions handled by selected interbank funds transfer systems:
value of transactions ⁽¹⁾

	DEM billions				
	1993	1994	1995	1996	1997
Retail payments	4,822.1	4,688.7	4,699.4	4,628.4	4,540.5
Maschinell-optische Beleglesung (MAOBE) ⁽²⁾	2,814.4	2,307.3	266.9	240.7	218.8
<i>Collection items</i>	2,666.5	2,203.4	240.0	224.5	215.3
<i>Credit transfers</i>	147.9	103.9	26.9	16.2	3.5
Belegloser Datenträgeraustausch (DTA) ⁽³⁾	2,007.7	2,381.4	4,432.5	4,387.7	4,321.7
<i>Collection items</i>	1,063.8	1,313.9	3,277.1	3,173.6	3,044.9
<i>Credit transfers</i>	943.9	1,067.5	1,155.4	1,214.1	1,276.8
Large-value payments	195,455.3	204,656.0	187,966.8	189,952.8	218,119.3
Gross-settlement procedures	27,661.8	30,342.6	32,197.1	32,613.5	35,372.8
Eiliger Zahlungsverkehr (EIL-ZV) ⁽⁴⁾	18,874.6	22,772.4	27,007.5	28,743.1	33,395.5
Platzüberweisungsverkehr ⁽⁵⁾	8,787.2	7,570.2	5,189.6	3,870.4	1,977.3
Net settlement procedures	167,793.5	174,313.4	155,769.7	157,339.3	182,746.5
Konventionelle Abrechnung ⁽⁶⁾	38,488.5	29,409.9	7,382.3	3,929.8	1,077.9
<i>Collection items (conventional)</i>	827.6	799.9	669.8	620.8	275.1
<i>Local credit transfers (conventional)</i>	37,660.9	28,610.0	6,712.5	3,309.0	802.8
Elektronische Abrechnung Frankfurt (EAF 2)	129,305.0	144,903.5	148,387.4	153,409.5	181,668.6

- (1) This table does not include figures relating to IFTS which are not operated by the Deutsche Bundesbank.
- (2) Machine-optical voucher reading procedure, excluding payments submitted in a paper-based form which were converted and passed on in a paperless form by the Bank's regional computer centres/payment units (BSE/GSE cheques and EZÜ/BZÜ credit transfers).
- (3) Paperless exchange of data media, including payments submitted in a paper-based form which were converted and passed on in a paperless form by the Bank's regional computer centres/payment units (BSE/GSE cheques and EZÜ/BZÜ credit transfers).
- (4) EIL-ZV (express electronic credit transfer system).
- (5) Express local credit transfer system. Reduction due to shift caused by conversion obligation: previous paper-based payments shifted to Eil-ZV and DTA.
- (6) Daily local clearing system.

Table 10

Participants in securities settlement systems
(end of 1997)

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
Deutsche Börse Clearing AG (DBC)			
Banks	n.a.	n.a.	n.a.
Stockbrokers ⁽¹⁾	n.a.	n.a.	n.a.
Securities houses	n.a.	n.a.	n.a.
Insurance companies	n.a.	n.a.	n.a.
Foreign central banks	n.a.	n.a.	n.a.
Cedel / Euroclear	n.a.	n.a.	n.a.
Others ⁽²⁾	n.a.	n.a.	n.a.

- (1) Direct account with DBC (without stockbrokers without direct account with DBC).
- (2) DTC, NY (only oneway through DBC, New York); NECIGEF, Amsterdam; OEKB, Vienna; SEGA, Zürich; SICOVAM, Paris; CIK, Brussels; JSCC, Tokio; Monte Titoli, Milan, Intersettle Zürich (via Dresdner Bank Frankfurt).

Table 11

Transfer instructions handled by securities settlement systems:
volume of transactions

	1993	1994	1995	1996	1997
					millions ⁽¹⁾
Deutsche Börse Clearing AG (DBC)	27.8	25.2	23.4	20.6	31.2
Delivery versus payment	21.9	20.5	19.0	17.7	27.5
without countervalue + others	5.9	4.7	4.4	2.9	3.7

(1) In 1996 and 1997 interregional transactions calculated in a new procedure, only chargeable transactions.

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions

	1993	1994	1995	1996	1997
					DEM billions
Deutsche Börse Clearing AG (DBC)	9,417	9,510	11,878	16,040	18,850
Bonds	n.a.	8,205	9,742	13,616	n.a.
Shares (including options)	n.a.	1,305	2,136	2,424	n.a.

Table 13

Nominal values registered by securities settlement systems

(end of year)

	1993	1994	1995 ⁽¹⁾	1996	1997
Deutsche Börse Clearing AG (DBC)					
Bonds (DEM billions)	3,002.1	3,274.1	3,698.4	3,945.3	4,218.2
shares	2,567.3	4,183.6	n.a.	n.a.	n.a.
unit quotations (millions)					
(including warrants)	13,230.9	19,378.3	28,238.1	35,157.1	48,039.9
percentage quotations (DEM billions)					
(including profit-sharing certificates)	20,336.7	25,361.6	28,008.3	34,272.8	35,560.0
Investment fund units (DEM millions)	2,567.3	4,183.6	7,514.1	8,989.1	8,876.3

(1) Due to a new data collecting procedure, figures are not comparable with figures of the years before.

Table 14

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

	1993	1994	1995	1996	1997
	millions				
Cheques issued	934.0	903.0	812.0	772.0	729.0
<i>of which truncated</i>	730.0	722.0	650.0	625.0	597.8
Payments by debit ⁽²⁾ and credit cards	293.5	350.5	416.1	504.1	529.2
Paper-based credit transfers	1,959.1	1,672.2	1,128.8	589.6	615.8
<i>customer initiated</i>	1,947.8	1,664.7	1,126.8	588.5	615.2
<i>interbank/large-value</i> ⁽³⁾	11.3	7.5	2.0	1.1	0.6
Paperless credit transfers	3,294.3	3,899.4	4,527.3	5,317.7	5,562.2
<i>customer initiated</i>	3,281.2	3,884.3	4,507.2	5,296.5	5,536.8
<i>interbank/large-value</i> ⁽³⁾	13.1	15.1	20.1	21.2	25.4
Direct debits ⁽⁴⁾	4,286.9	4,607.0	4,704.6	4,828.8	5,393.2
Electronic money	-	-	-	0.2	4.2
<i>of which:</i>					
<i>Payments by card-based products</i> ⁽⁵⁾	-	-	-	0.2	4.2
<i>Payments by network-based products</i>	-	-	-	n.a.	n.a.
TOTAL	10,767.8	11,432.1	11,588.8	12,012.4	12,833.6

- (1) Partly estimated; 1995 adjustment of volume of transactions via cheque, credit transfer, direct debit. Without adjustment there would have been a steady rise of the volume of cashless payment transactions (app. + 6 %).
- (2) In 1997 only electronic cash.
- (3) Only interbank payments via the Deutsche Bundesbank by *Konventionelle Abrechnung* in Frankfurt, *Elektronische Abrechnung Frankfurt (EAF 2)*, *Eiliger Zahlungsverkehr* and *Platzüberweisungsverkehr*.
- (4) Including cash dispenser/ATM withdrawals made with eurocheque cards at banks other than the one issuing the card.
- (5) In 1996 only use of the so-called "Geld Karte" in the pilot region Ravensburg/Weingarten.

Table 15

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

	1993	1994	1995	1996	DEM billions 1997
Cheques issued	5,343.0	5,550.0	4,544.0	4,135.0	4,005.0
<i>of which truncated</i>	583.0	662.8	908.8	1,240.5	1,602.0
Payments by debit ⁽²⁾ and credit cards	48.3	57.2	65.6	81.9	81.7
Paper-based credit transfers	65,984.4	55,224.8	26,764.2	17,671.7	10,565.9
<i>customer initiated</i>	24,418.6	22,908.5	15,743.2	11,206.8	8,032.4
<i>interbank/large-value ⁽³⁾</i>	41,565.8	32,316.3	11,021.0	6,464.9	2,533.5
Paperless credit transfers	155,854.9	177,993.7	185,615.2	197,824.3	234,232.1
<i>customer initiated</i>	11,333.4	15,528.5	19,634.8	26,149.2	32,129.6
<i>interbank/large-value ⁽³⁾</i>	144,521.5	162,465.2	165,980.4	171,675.1	202,102.5
Direct debits ⁽⁴⁾	4,481.7	4,766.8	4,644.5	5,562.3	6,382.0
Electronic money	-	-	-	neg.	neg.
<i>of which:</i>					
<i>Payments by card-based products ⁽⁵⁾</i>	-	-	-	neg.	neg.
<i>Payments by network-based products</i>	-	-	-	n.a.	n.a.
TOTAL	231,712.3	243,592.5	221,633.5	225,275.2	255,266.7

(1) Partly estimated; 1995 adjustment of value of transactions via cheque, credit transfer, direct debit.

(2) In 1997 only electronic cash.

(3) Only interbank payments via the Deutsche Bundesbank by *Konventionelle Abrechnung* in Frankfurt, *Elektronische Abrechnung Frankfurt (EAF 2)*, *Eiliger Zahlungsverkehr* and *Platzüberweisungsverkehr*.

(4) Including cash dispenser/ATM withdrawals made with eurocheque cards at banks other than the one issuing the card.

(5) In 1996 only use of the so-called "Geld Karte" in the pilot region Ravensburg/Weingarten.

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	230	240	253	253	262
<i>of which:</i>					
<i>members</i>	150	149	152	155	153
<i>sub-members</i>	78	88	97	94	101
<i>participants</i>	2	3	4	4	8
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	35,359,560	38,187,536	43,824,742	47,803,674	55,873,558
<i>of which:</i>					
<i>category I</i>	12,842,381	13,843,274	15,580,557	16,493,249	17,731,609
<i>category II</i>	7,245,703	7,557,127	8,373,229	8,564,736	9,177,317
<i>sent/received to/from domestic</i>					
<i>users</i>	6,056,083	6,310,196	6,734,317	6,834,054	7,396,209
Total messages received	48,149,365	51,011,768	56,505,445	59,246,442	66,287,028
<i>of which:</i>					
<i>category I</i>	15,490,352	16,438,145	17,759,489	18,627,409	20,146,525
<i>category II</i>	20,424,752	21,833,621	24,441,740	25,231,632	28,261,324
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

Greece

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	10,379.5	10,426.3	10,454.0	10,476.0	10,497.0
Gross domestic product (GRD billions)	21,106.2	23,755.8	26,486.1	29,594.6	32,705.6
Exchange rate vis-à-vis ECU ⁽¹⁾	268.413	287.939	302.989	305.546	309.355

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	GRD billions				
	1993	1994	1995	1996	1997
Notes and coins	1,512.0	1,687.7	1,863.5	1,941.4	2,182.7
Transferable deposits ⁽¹⁾	1,175.5	1,611.7	1,854.6	2,354.4	2,634.7
<i>of which held by:</i>					
<i>households</i>	258.8	431.3	492.5	612.1	<i>n.a</i>
<i>corporate sector</i>	326.0	376.5	478.2	588.6	<i>n.a</i>
<i>other</i> ⁽²⁾	590.7	803.9	883.9	1,153.7	<i>n.a</i>
Narrow money supply (M1)	2,687.5	3,299.4	3,718.1	4,295.8	4,817.4
Outstanding value on electronic money schemes	-	-	-	-	-
<i>of which:</i>					
<i>on card-based products</i>	-	-	-	-	-
<i>on network-based products</i>	-	-	-	-	-

(1) Total sight deposits (in local currency).

(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				
	1993	1994	1995	1996	1997
Required reserves held at central bank ⁽¹⁾	754.0	860.7	1,231.9	1,460.5	1,818.7
<i>of which can be used for settlement</i>	-	-	-	-	-
Free reserves held at central bank	-	-	-	-	-
Transferable deposits at other institutions	165.5	363.6	280.1	367.8	607.5

(1) Primary and secondary reserve requirements.

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

	1993	1994	1995	1996	GRD millions 1997
Total banknotes issued	1,606,274	1,800,385	2,018,137	2,205,992	2,404,012
<i>of which:</i>					
<i>GRD 10,000</i>	-	-	358,018	576,867	1,063,054
<i>GRD 5,000</i>	1,455,445	1,654,553	1,522,079	1,480,441	1,184,457
<i>GRD 1,000</i>	112,439	108,743	100,503	106,771	110,104
<i>GRD 500</i>	22,167	24,845	26,034	28,457	29,569
<i>GRD 200</i>				1,985	5,529
<i>GRD 100</i>	13,814	10,262	9,889	9,706	9,376
<i>GRD 50</i>	2,409	1,982	1,614	1,765	1,923
Total coins issued	35,324	39,415	42,817	45,075	47,449
Notes and coins held by credit institutions	129,555	152,102	197,402	309,705	268,741
Notes and coins in circulation outside credit institutions	1,512,043	1,687,698	1,863,552	1,941,362	2,182,720

Table 5**Institutional framework***(end of 1997)*

Categories	Number of institutions	Number of branches ⁽²⁾	Number of accounts (thousands)	Value of accounts (GRD billions)
Central bank ⁽¹⁾	1	95	1.5	5.2
Commercial banks	42	1,988	1,267	2,368
Shipping banks	1	1	n.a	n.a
Co-operative and rural banks	7	21	3.9	3
Specialised credit institutions	5	128	23.0	238
Postal Savings Bank	1	128	n.a	n.a
TOTAL	57	2,361	1295.4	2611.2
Branches of foreign banks	23	103	37	164
<i>of which EC-based</i>	14	45	20	90

(1) There are twenty-seven full branches and sixty-seven agencies of the Bank of Greece (which offer payment services only).

(2) Including head offices.

Table 6**Cash dispensers, ATMs and EFTPOS terminals***(end of year)*

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	12	12	12	12	12
Number of machines	850	1,617	1,350	1,936	2,190
Volume of transactions (thousands)	n.a.	40,655	40,720	58,605	62,536
Value of transactions (GRD millions)	n.a.	1,198,099	1,683,639	2,377,010	3,141,534
EFTPOS terminals					
Number of networks	2	3	3	5	5
Number of points of sale	2,500	11,296	11,316	18,812	29,719
Volume of transactions (thousands)	n.a.	7,867	8,410	8,590	14,048
Value of transactions (GRD millions)	n.a.	149,407	163,125	195,632	321,293
Electronic money loading machines ⁽¹⁾					
Number of machines	-	-	-	-	-
Volume of transactions (thousands)	-	-	-	-	-
Value of transactions (millions)	-	-	-	-	-
Electronic money purchase terminals					
Number of machines	-	-	-	-	-
Volume of transactions (thousands)	-	-	-	-	-
Value of transactions (millions)	-	-	-	-	-

(1) E-money schemes are in pilot phase.

Table 7**Number of payment cards in circulation ⁽¹⁾***(end of year)*

	1993	1994	1995	1996	1997
					thousands
Cards with a cash function	n.a.	667	2,398	2,400	2,459
Cards with a debit/credit function	1,114	1,077	1,419	2,578	3,079
<i>of which:</i>					
<i>cards with a debit function</i>	n.a.	502	361	1,518	1,553
<i>cards with a credit function</i>	n.a.	575	1,058	1,060	1,526
Cards with a cheque guarantee function	-	-	-	-	-
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.
Electronic money cards ⁽²⁾	-	-	-	-	-

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

(2) E-money schemes are in pilot phase.

Table 8

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

	1993	1994	1995	1996	1997
					thousands
Athens Clearing Office	15,462	14,611	10,847	8,801	7,477
Cheques in GRD and exchange	15,408	14,558	10,796	8,747	7,426
Other (Money Market Loan)	54	53	51	54	51
DIAS SA ⁽¹⁾	374	1,900	6,629	9,349	11,194
Cheques	374	1,900	5,052	8,127	10,152
Eurocheques	-	-	1,577	1,222	1,042

(1) DIAS SA started operating in October 1993.

Table 9

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

	1993	1994	1995	1996	1997
					GRD billions
Athens Clearing Office	101,362.2	126,438.2	120,028.6	174,596.9	194,873.0
Cheques in GRD and exchange	32,456.2	42,148.7	41,002.2	49,678.9	58,577.0
Other (Money Market Loan)	68,906.0	84,289.5	79,026.4	124,918.0	136,296.0
DIAS SA ⁽¹⁾	145.0	1,084.3	3,739.9	6,969.7	9,713.0
Cheques	145.0	1,084.3	3,677.3	6,920.9	9,672.0
Eurocheques	-	-	62.6	48.8	41.0

(1) DIAS SA started operating in October 1993.

Table 10

Participants in securities settlement systems ⁽¹⁾
(end of 1997)

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
Securities Settlement System			
Banks	45	45	45
Stockbrokers	54	54	13

(1) The Securities Settlement System for securities in book-entry form started operating in mid-1995.

(2) Each participant holds one customer account for all their customers.

Table 11Transfer instructions handled by securities settlement systems: ⁽¹⁾

volume of transactions

	1993	1994	1995	1996	1997
Securities Settlement System			4,318	18,404	31,061
Government Securities	n.a.	n.a.	4,318	18,404	31,061

(1) Bonds are included in the figure of Government Securities.

Table 12Transfer instructions handled by securities settlement systems: ⁽¹⁾

value of transactions

	1993	1994	1995	1996	GRD billions 1997
Securities Settlement System			3,574	5,187	19,090
Government Securities	n.a.	n.a.	3,574	5,187	19,090

(1) Bonds are included in the figure of Government Securities.

Table 13Nominal values registered by securities settlement systems ⁽¹⁾*(end of year)*

	1993	1994	1995	1996	GRD billions 1997
Securities Settlement System			1,702	5,503	12,311
Government Securities	n.a.	n.a.	1,702	5,503	12,311

(1) Bonds are included in the figure of Government Securities.

GREECE

Table 14

volume of transactions

	1993	1994	1995	1996	1997
					thousands
Cheques issued	n.a.	n.a.	2,922	3,343	3,575
Payments by debit and credit cards	18,000	28,000	22,000	26,325	21,386
Paper-based credit transfers	n.a.	822	n.a.	n.a.	677
<i>customer initiated</i>	<i>n.a.</i>	<i>743</i>	<i>n.a.</i>	<i>n.a.</i>	<i>637</i>
<i>interbank/large-value</i>	<i>n.a.</i>	<i>79</i>	<i>n.a.</i>	<i>n.a.</i>	<i>40</i>
Paperless credit transfers	n.a.	2,497	3,333	3,280	5,638
<i>customer initiated</i>	<i>n.a.</i>	<i>2,117</i>	<i>2,921</i>	<i>2,984</i>	<i>5,299</i>
<i>interbank/large-value</i>	<i>n.a.</i>	<i>380</i>	<i>412</i>	<i>296</i>	<i>339</i>
Direct debits	n.a.	n.a.	846	1,086	882
Electronic money ⁽¹⁾	-	-	-	-	-
of which:					
<i>Payments by card-based products</i>	-	-	-	-	-
<i>Payments by network-based products</i>	-	-	-	-	-
Others	n.a.	n.a.	n.a.	-	-
TOTAL	n.a.	n.a.	29,101	34,034 ⁽²⁾	32,158

(1) E-money schemes are in pilot phase.

(2) Total refers only to data available.

Table 15

Indicators of use of various cashless payment instruments:

value of transactions

	1993	1994	1995	1996	1997
					GRD billions
Cheques issued	n.a.	n.a.	8,440	15,457	20,624
Payments by debit and credit cards	320	n.a.	406	504	538
Paper-based credit transfers	n.a.	31,748	n.a.	n.a.	49,360
<i>customer initiated</i>	<i>n.a.</i>	<i>106</i>	<i>n.a.</i>	<i>n.a.</i>	<i>154</i>
<i>interbank/large-value</i>	<i>n.a.</i>	<i>31,642</i>	<i>n.a.</i>	<i>n.a.</i>	<i>49,206</i>
Paperless credit transfers	n.a.	132,940	269,082	394,191	369,238
<i>customer initiated</i>	<i>n.a.</i>	<i>30,528</i>	<i>34,291</i>	<i>39,263</i>	<i>40,441</i>
<i>interbank/large-value</i>	<i>n.a.</i>	<i>102,412</i>	<i>234,791</i>	<i>354,928</i>	<i>328,797</i>
Direct debits	n.a.	n.a.	21	27	21
Electronic money ⁽¹⁾	-	-	-	-	-
of which:					
<i>Payments by card-based products</i>	-	-	-	-	-
<i>Payments by network-based products</i>	-	-	-	-	-
Others	n.a.	n.a.	n.a.	n.a.	n.a.
TOTAL	n.a.	n.a.	277,949	410,179 ⁽²⁾	439,781

(1) E-money schemes are in pilot phase.

(2) Total refers only to data available.

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	37	40	44	43	43
<i>of which:</i>					
<i>members</i>	19	22	24	23	22
<i>sub-members</i>	18	18	20	20	21
<i>participants</i>	-	-	-	-	-
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	2,090,383	2,558,821	3,054,343	3,653,816	4,749,696
<i>of which:</i>					
<i>category I</i>	698,886	833,724	995,550	1,156,158	1,540,709
<i>category II</i>	737,499	955,238	1,099,905	1,279,116	1,625,045
<i>sent/received to/from domestic users</i>	403,575	576,431	689,608	868,701	1,157,566
Total messages received	2,221,004	2,599,331	2,982,371	3,489,556	4,247,397
<i>of which:</i>					
<i>category I</i>	635,959	748,822	873,179	978,375	1,110,972
<i>category II</i>	316,394	469,224	526,311	700,031	1,030,760
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

Spain

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	39,086.1	39,149.5	39,209.7	39,270.0	39,323.0
Gross domestic product (ESP billions)	60,934.28	64,698.81	69,778.86	74,081.8	78,290.9
Exchange rate vis-à-vis ECU ⁽¹⁾	149.1240	158.9190	163.000	160.748	165.887

(1) Average for the year.

Table 2Settlement media used by non-banks ⁽¹⁾*(end of year)*

	1993	1994	1995	1996	ESP billions 1997
Notes and coins	6,509	7,164	7,535	7,941	8,378
Transferable deposits	20,902	22,087	22,605	24,169	27,566
Narrow money supply (M1)	26,967	28,753	29,638	31,717	35,484
Outstanding value on electronic money schemes	-	-	-	0.07	0.15
<i>of which:</i>					
<i>on card-based products</i>	-	-	-	0.07	0.15
<i>on network-based products</i>	-	-	-	-	-

(1) Including non-bank financial institutions.

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	1993	1994	1995	1996	ESP billions 1997
Required reserves held at central bank	841	936	1,001	1,033	1,053
<i>of which can be used for settlement</i>	841	936	1,001	1,033	1,053
Free reserves held at central bank	12	11	14	10	10
Transferable deposits at other institutions	243	285	390	295	297

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

	1993	1994	1995	1996	ESP billions 1997
Total banknotes issued	6,683	7,324	7,708	8,147	8,638
<i>of which:</i>					
ESP 10,000	3,222	3,700	4,003	4,314	4,684
ESP 5,000	2,901	3,027	3,093	3,206	3,297
ESP 2,000	263	317	354	378	407
ESP 1,000	291	273	253	246	246
Other	5	5	5	4	4
Total coins issued	306	333	360	371	354
<i>of which:</i>					
ESP 2000	-	15	28	33	37
ESP 500	86	89	93	96	101
ESP 200	22	22	21	19	14
ESP 100	105	109	115	119	124
ESP 50	10	10	11	11	6
ESP 25	40	42	44	46	39
ESP 10	3	3	3	4	4
ESP 5	23	24	25	26	16
ESP 2	0.1	0.1	0.1	0.1	-
ESP 1	7	7	7	7	2
Other	11	11	11	12	12
Notes and coins held by credit institutions	480	493	532	577	613
Notes and coins in circulation outside credit institutions	6,509	7,164	7,535	7,941	8,378

Table 5**Institutional framework***(end of 1997)*

Categories	Number of institutions	Number of branches	Number of accounts ⁽¹⁾ (thousands)	Value of accounts (ESP billions)
Central bank	1	52	-	-
Commercial banks	158	17,581	27,576	13,543
Savings banks	51	16,635	37,745	12,968
Co-operative and rural banks	95	3,469	5,044	1,662
Post office	-	-	-	-
TOTAL	305	37,737	70,365	28,173
Branches of foreign banks	53	133	30	226
<i>of which EC-based</i>	33	102	24	182

(1) The accounts of foreign branches of Spanish banks are included. However, business in Spain amounts to 99%, both for commercial and savings banks.

Table 6**Cash dispensers, ATMs and EFTPOS terminals***(end of year)*

	1993	1994	1995 ⁽¹⁾	1996	1997
Cash dispensers and ATMs					
Number of networks	3	3	3	3	3
Number of machines	21,771	23,479	26,680	30,437	33,940
Volume of transactions (millions)	460	509	565	582	605
Value of transactions (ESP billions)	6,006	6,803	7,713	7,924	8,211
EFTPOS terminals					
Number of networks	3	3	3	3	3
Number of machines	323,889	400,184	481,280	575,325	656,325
Volume of transactions (millions)	227	253	310	294	348
Value of transactions (ESP billions)	1,458	1,700	2,079	2,342	2,745
Electronic money loading machines					
Number of machines	-	-	-	4,123	10,942
Volume of transactions (thousands)	-	-	-	149	1,110
Value of transactions (millions)	-	-	-	363	2,948
Electronic money purchase terminals					
Number of machines	-	-	-	48,524	77,092
Volume of transactions (thousands)	-	-	-	41	1,920
Value of transactions (millions)	-	-	-	38	1,001

(1) Since 1995 a new source of data has been used and, therefore, some of the 1995 figures may differ from those contained in the Addendum to the "Blue Book", January 1997.

Table 7**Number of payment cards in circulation ⁽¹⁾***(end of year)*

	1993	1994	1995 ⁽²⁾	1996	1997
					thousands
Cards with a cash function	32,565	32,041	31,753	33,189	35,770
Cards with a debit/credit function	32,565	32,041	31,753	33,076	35,275
<i>of which:</i>					
<i>cards with a debit function</i>	32,565	32,041	31,753	33,076	35,275
<i>cards with a credit function</i>	10,384	10,480	10,491	10,645	11,634
Cards with a cheque guarantee function	-	-	-	-	-
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.
Electronic money cards	-	-	-	1,344	3,502

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

(2) Since 1995 a new source of data has been used and, therefore, some of the 1995 figures may differ from those contained in the Addendum to the "Blue Book", January 1997.

Table 8

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

	1993	1994	1995	1996	1997
					millions
Clearing house	182.9	112.1	63.8	15.5	2.1
Retail payments ⁽¹⁾	181.1	110.3	61.9	13.5	-
<i>Cheques</i>	14.1	10.9	8.5	1.6	-
<i>Paper-based credit transfers</i>	-	-	-	-	-
<i>Direct debits</i>	81.0	43.3	17.9	1.5	-
<i>Bills of exchange</i>	86.0	56.1	35.5	10.4	-
Large-value payments ⁽²⁾	1.8	1.8	1.9	2.0	2.1
<i>Foreign exchange transactions</i> ⁽³⁾	0.1	0.1	0.1	0.1	0.1
<i>Cross-border transfers</i> ⁽⁴⁾	1.7	1.6	1.8	1.9	2.0
SNCE	431.9	515.5	582.7	663.9	735.8
Computer link	177.2	188.0	194.7	237.2	522.6
<i>Cheques</i>	126.1	126.9	124.8	129.1	128.3
<i>Credit transfers</i>	51.1	61.1	69.9	81.3	96.1
<i>Direct debits</i>	-	-	-	26.5	296.0
<i>Bills of exchange</i>	-	-	-	0.3	2.2
Magnetic tape	254.7	327.5	388.0	426.7	213.2
<i>Cheques</i>	20.8	16.6	16.9	16.1	14.5
<i>Credit transfers</i>	21.0	17.0	18.8	20.3	20.2
<i>Direct debits</i>	164.1	224.4	269.6	291.3	76.5
<i>Petrol cheques</i>	24.7	22.7	20.1	19.0	21.7
<i>Bills of exchange</i>	24.1	46.8	62.6	80.0	80.3
STMD	0.89	0.89	0.86	1.13	1.38
Interbank loans market	0.30	0.27	0.25	0.26	0.24
Book-entry debt market	0.57	0.60	0.59	0.69	0.69
Interbank transfers	0.02	0.02	0.02	0.17	0.45

(1) From January 1997 on, retail payments are processed entirely through the SNCE system.

(2) Only at the Madrid Clearing House.

(3) Peseta leg of foreign exchange transactions.

(4) Large-value transfers from/to non-residents denominated in pesetas.

Table 9

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

	1993	1994	1995	1996	ESP billions 1997
Clearing house	1,427,594	1,387,959	1,261,007	1,508,694	1,642,909
Retail payments ⁽¹⁾	44,511	35,723	22,890	7,759	-
<i>Cheques</i>	19,729	14,717	5,476	1,361	-
<i>Paper-based credit transfers</i>	-	-	-	-	-
<i>Direct debits</i>	3,764	2,586	1,530	274	-
<i>Bills of exchange</i>	21,018	18,420	15,884	6,124	-
Large-value payments ⁽²⁾	1,383,083	1,352,236	1,238,117	1,500,935	1,642,909
<i>Foreign exchange transactions</i> ⁽³⁾	196,759	202,219	185,011	176,997	161,096
<i>Cross-border transfers</i> ⁽⁴⁾	1,186,324	1,150,017	1,053,106	1,323,938	1,481,813
SNCE	81,506	91,826	107,619	128,973	149,590
Computer link	56,477	63,585	68,605	77,670	99,558
<i>Cheques</i>	45,397	49,238	52,104	56,786	62,610
<i>Credit transfers</i>	11,080	14,347	16,501	19,597	24,074
<i>Direct debits</i>	-	-	-	1,112	11,499
<i>Bills of exchange</i>	-	-	-	175	1,376
Magnetic tape	25,029	28,241	39,014	51,303	50,032
<i>Cheques</i>	8,605	8,369	11,329	10,862	11,418
<i>Credit transfers</i>	10,484	9,862	11,087	12,787	13,568
<i>Direct debits</i>	4,332	6,105	8,362	10,234	3,395
<i>Petrol cheques</i>	62	54	46	44	83
<i>Bills of exchange</i>	1,546	3,851	8,190	17,376	21,567
STMD	2,602,096	2,784,127	2,453,898	3,124,037	3,327,911
Interbank loans market	859,004	832,726	762,541	927,262	974,558
Book-entry debt market	1,706,043	1,909,184	1,648,929	2,017,987	2,101,506
Interbank transfers	37,049	42,217	42,428	178,788	251,847

(1) From January 1997 on, retail payments are processed entirely through the SNCE system.

(2) Only at the Madrid Clearing House.

(3) Peseta leg of foreign exchange transactions.

(4) Large-value transfers from/to non-residents denominated in pesetas.

Table 10**Participants in securities settlement systems***(end of 1997)*

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
CADE ⁽¹⁾	276	114	232
Banks	128	52	126
Savings Banks	50	27	50
Credit co-operatives	36	5	36
Stockbrokers	34	30	14
Insurance companies	7	-	3
Official credit institutions	1	-	1
Mutual funds	13	-	0
International financial organisations	5	-	0
Deposit guarantee funds	2	-	2
SCLV	103	103	56
Banks	42	42	39
Savings banks	6	6	6
Credit co-operatives	1	1	1
Stockbrokers	54	54	10
ESPACLEAR	98	97	66
Banks	64	64	47
Savings banks	16	15	13
Credit co-operatives	1	1	1
Stockbrokers	17	17	5

(1) "Central de Anotaciones de Deuda Española", formerly SACDE.

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

	1993	1994	1995	1996	1997
					millions
CADE ⁽¹⁾	7.51	6.69	7.46	8.44	8.42
Government securities	7.30	6.50	7.30	8.28	8.30
CDs issued by the Banco de España	0.14	0.10	0.10	0.08	0.06
Futures and options	0.07	0.09	0.06	0.08	0.06
SCLV	4.61	4.55	4.19	5.37	6.67
Bonds	0.5	0.1	0.1	0.18	0.21
Shares	4.1	4.4	4.0	5.06	6.32
Futures and options	0.007	0.05	0.09	0.13	0.14
ESPACLEAR thousands	12.8	11.6	8.9	14.6	23.1
Bonds	7.7	8.1	6.9	12.6	19.3
Commercial paper	5.1	3.5	2.0	2.0	3.7

(1) "Central de Anotaciones de Deuda Española", formerly SACDE.

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions

	1993	1994	1995	1996	ESP billions 1997
CADE ⁽¹⁾	2,538,112	2,879,575	2,631,615	3,481,866	4,409,299
Government securities	2,249,117	2,638,171	2,396,371	3,252,236	4,171,490
CDs issued by the Banco de España	288,315	240,479	234,653	228,846	237,169
Futures and options	680	925	591	784	640
SCLV	8,821	20,169	17,514	26,769	27,629
Bonds	2,287	1,805	1,722	1,953	2,128
Shares	6,531	18,357	15,769	24,782	25,449
Futures and options	2.7	7.3	23.1	34.0	52.0
ESPACLEAR	2,586	2,878	1,910	4,308	3,527
Bonds	1,678	2,283	1,600	3,520	2,955
Commercial paper	908	595	310	788	572

(1) "Central de Anotaciones de Deuda Española", formerly SACDE.

Table 13

Nominal values registered by securities settlement systems
(end of year)

	1993	1994	1995	1996	ESP billions 1997
CADE ⁽¹⁾	28,318	30,581	34,123	38,791	41,088
Government securities	25,305	27,892	31,792	36,848	39,569
CDs issued by the Banco de España	3,013	2,689	2,331	1,943	1,519
SCLV	6,794	7,835	7,340	7,453	7,774
Bonds	2,878	3,372	2,957	2,910	2,961
Shares	3,916	4,463	4,383	4,543	4,813
ESPACLEAR	2,444	2,929	3,554	3,506	4,473
Bonds	1,542	2,218	2,805	3,115	3,974
Commercial paper	902	711	749	391	499

(1) "Central de Anotaciones de Deuda Española", formerly SACDE.

Table 14

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

	1993	1994	1995 ⁽¹⁾	1996	millions 1997
Cheques issued	217.0	212.8	222.8	204.9	216.8
Payments by debit and credit cards	227.0	253.0	310.5	293.7	347.8
Paper-based credit transfers	-	-	-	-	-
<i>customer initiated</i>	-	-	-	-	-
<i>interbank/large-value</i>	-	-	-	-	-
Paperless credit transfers	79.2	149.6	207.8	231.8	240.0
<i>customer initiated</i>	76.2	146.6	204.7	228.4	236.4
<i>interbank/large-value</i>	3.0	3.0	3.1	3.4	3.6
Direct debits	695.5	667.0	632.1	671.0	753.2
Electronic money	-	-	-	0.04	1.9
of which:					
<i>Payments by card-based products</i>	-	-	-	0.04	1.9
<i>Payments by network-based products</i>	-	-	-	-	-
Others					
<i>Bills of exchange</i>	122.0	136.2	131.6	121.3	106.3
TOTAL	1,340.7	1,418.7	1,504.8	1,522.7	1,666.0

(1) Since 1995 a new source of data has been used and, therefore, some of the 1995 figures may differ from those contained in the Addendum to the "Blue Book", January 1997.

Table 15

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

	1993	1994	1995 ⁽¹⁾	1996	ESP billions 1997
Cheques issued	82,344	114,937	105,038	98,253	114,476
Payments by debit and credit cards	1,458	1,700	2,079	2,342	2,745
Paper-based credit transfers	-	-	-	-	-
<i>customer initiated</i>	-	-	-	-	-
<i>interbank/large-value</i>	-	-	-	-	-
Paperless credit transfers	4,156,111.0	4,311,906.0	3,987,393	4,872,061	5,166,470
<i>customer initiated</i>	23,289	49,938	151,185	190,552	181,317
<i>interbank/large-value</i>	4,132,822	4,286,498	3,836,208	4,681,509	4,985,153
Direct debits	27,689	22,810	21,401	22,343	27,573
Electronic money	-	-	-	0.04	1.0
of which:					
<i>Payments by card-based products</i>	-	-	-	0.04	1.0
<i>Payments by network-based products</i>	-	-	-	-	-
Others					
<i>Bills of exchange</i>	25,069	30,376	34,439	33,267	27,871
TOTAL	4,292,671	4,481,729	4,150,350	5,028,266	5,339,136

(1) Since 1995 a new source of data has been used and, therefore, some of the 1995 figures may differ from those contained in the Addendum to the "Blue Book", January 1997.

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	117	115	119	114	115
<i>of which:</i>					
<i>members</i>	50	52	54	54	53
<i>sub-members</i>	67	63	64	58	60
<i>participants</i>	-	-	1	2	2
Memorandum item:					
Total S.W.I.F.T. world-wide	4004	4623	5229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2103	2412	2259	2,874	2,969
<i>sub-members</i>	1802	2023	2259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	11,529,186	12,564,221	13,927,485	15,716,791	17,723,342
<i>of which:</i>					
<i>category I</i>	2,263,748	2,643,318	3,151,216	3,488,406	3,961,209
<i>category II</i>	3,926,640	4,043,649	4,458,351	4,724,488	5,127,961
<i>sent/received to/from domestic users</i>	2,920,843	3,086,299	3,388,794	3,842,649	4,195,726
Total messages received	11,299,175	12,158,220	13,528,503	15,041,769	17,485,986
<i>of which:</i>					
<i>category I</i>	2,515,427	2,858,001	3,334,738	3,710,237	4,235,230
<i>category II</i>	4,160,771	4,225,242	4,594,817	4,979,247	5,271,626
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

France

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	57,654.8	57,794.5	58,136.0	58,375.0	58,607.0
Gross domestic product (FRF billions)	7,082.8	7,376.1	7,663.7	7,822.2	8,126.5
Exchange rate vis-à-vis ECU ⁽¹⁾	6.6330	6.5835	6.5251	6.4930	6.6126

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	FRF billions				
	1993	1994	1995	1996	1997
Notes and coins	252.4	252.2	255.8	257.8	260.7
Transferable deposits ⁽¹⁾	1,376.9	1,419.7	1,544.0	1,556.8	1,673.3
<i>of which held by:</i>					
<i>households</i>	742.2	748.0	822.4	795.3	815.0
<i>corporate sector</i>	381.7	414.7	433.4	453.2	489.6
<i>other</i>	253.0	257.0	288.2	308.3	368.7
Narrow money supply (M1)	1,629.3	1,671.9	1,799.8	1,814.7	1,934.0
Memorandum item:					
Transferable deposits in foreign currencies	37.2	35.5	46.8	46.9	57.2
Outstanding value on electronic money schemes	-	-	-	n.a.	n.a.
<i>of which:</i>					
<i>on card-based products</i>	-	-	-	n.a.	n.a.
<i>on network-based products</i>	-	-	-	n.a.	n.a.

(1) Excluding deposits in foreign currencies.

(2) Narrow money supply (M1): coins, French franc-denominated sight deposits held by non-banks (French overseas territories excluded).

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	FRF billions				
	1993	1994	1995	1996	1997
Required reserves held at central bank ⁽¹⁾	7.4	7.3	5.8	6.3	5.1
<i>of which can be used for settlement</i>	-	-	-	-	-
Free reserves held at central bank	0.9	0.8	1.4	1.0	2.5
Transferable deposits at other institutions ⁽²⁾	2,631.5	2,839.6	3,189.1	3,260.7	3,609.8
Memorandum item:					
Broad money aggregate	5,162.3	5,282.2	5,463.4	5,289.0	5,393.1

(1) December monthly average.

(2) Time deposits are included.

FRANCE

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

	FRF billions				
	1993	1994	1995	1996	1997
Total banknotes issued	263.6	266.7	268.9	270.4	273.0
<i>of which</i> ⁽¹⁾ :					
FRF 500	133.8	129.9	124.3	129.2	133.4
FRF 200	74.5	81.0	87.3	85.8	85.2
FRF 100	47.8	48.3	49.8	48.3	47.1
FRF 50	6.5	6.5	6.5	6.1	6.3
FRF 20	1.0	1.0	1.0	1.0	1.0
FRF 10	-	-	-	-	-
Total coins issued ⁽²⁾	17.1	17.8	18.2	18.5	19.0
Notes and coins held by credit institutions ⁽²⁾	14.8	15.8	17.0	18.2	20.0
Notes and coins in circulation outside credit institutions ⁽³⁾	252.4	252.3	255.8	257.8	260.7
Memorandum item:					
Banknotes held in French overseas territories	13.5	16.4	14.3	12.9	11.3

(1) Including banknotes issued in French overseas territories.

(2) Excluding French overseas territories.

(3) Banknotes issued in French overseas territories are not included.

Table 5**Institutional framework***(end of 1997)*

Categories	Number of institutions	Number of branches	Number of accounts	Value of accounts
			(thousands)	(FRF billions)
Central bank	1	211	63	3.9
Commercial banks	334	10,308	18,971	612.8
Savings banks	35	4,223	9,334	186.5
Co-operative and rural banks	147	10,936	24,262	456.8
Post office	1	16,919	9,825	180.4
Treasury	1	4,042	863	215.1
TOTAL	519	46,639	63,318	1,655.5
Branches of foreign banks	93	n.a.	n.a.	n.a.
<i>of which EC-based</i>	52	n.a.	n.a.	n.a.

Table 6**Cash dispensers, ATMs and EFTPOS terminals***(end of year)*

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	1	1	1	1	1
Number of machines	18,735	20,533	22,852	24,531	27,077
Volume of transactions (thousands) ⁽¹⁾	765,734	822,137	913,444	1,060,494	1,165,225
Value of transactions (FRF millions) ⁽¹⁾	334,083	347,031	370,861	430,535	474,724
EFTPOS terminals					
Number of networks	1	1	1	1	1
Number of points of sale ^{(2) (3)}	530,000	540,000	543,000	546,000	560,000
Volume of transactions (thousands) ⁽³⁾	1,564,462	1,672,404	1,866,803	2,084,284	2,301,576
Value of transactions (FRF millions) ⁽³⁾	511,289	534,376	590,214	656,037	701,654
Electronic money loading machines					
Number of machines	-	-	-	n.a.	n.a.
Volume of transactions (thousands)	-	-	-	n.a.	n.a.
Value of transactions (millions)	-	-	-	n.a.	n.a.
Electronic money purchase terminals					
Number of machines	-	-	-	n.a.	n.a.
Volume of transactions (thousands)	-	-	-	n.a.	n.a.
Value of transactions (millions)	-	-	-	n.a.	n.a.

(1) Including interbank cash withdrawals and cash withdrawals processed through selected interbank payment systems.

(2) Number of machines.

(3) Estimated figures.

Table 7**Number of payment cards in circulation ⁽¹⁾***(end of year)*

	1993	1994	1995	1996	1997
					thousands
	1993	1994	1995	1996	1997
Cards with a cash function	21,812	22,812	24,430	27,219	30,156
Cards with a debit/credit function	21,466	22,240	23,617	25,510	27,703
<i>of which:</i>					
<i>cards with a debit function</i>	21,466	22,240	23,617	25,510	27,703
<i>cards with a credit function</i>	512	579	654	735	780
Cards with a cheque guarantee function	193	n.a.	n.a.	n.a.	n.a.
Retailer cards ⁽²⁾	n.a.	n.a.	n.a.	n.a.	n.a.
Electronic money cards	-	-	-	n.a.	n.a.

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

(2) Estimated figures.

Table 8

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

	1993	1994	1995	1996	millions 1997
Clearing houses	3,677.4	3,659.0	3,588.4	3,633.8	3,623.0
Cheques	3,663.5	3,650.0	3,582.1	3,630.3	3,620.7
Credit transfers	2.8	2.2	1.6	0.3	0.1
Bills of exchange	6.0	1.9	-	-	-
Avals de trésorerie	0.5	0.4	0.3	0.2	0.1
Large-value credit transfers	4.6	4.5	4.4	3.0	2.1
CREIC ⁽¹⁾⁽²⁾	252.6	259.9	281.8	293.0	285.2
Ordinateur de compensation ⁽²⁾⁽³⁾	1,467.8	635.7	-	-	-
Credit transfers	657.0	341.7	-	-	-
Paperless bills of exchange	102.1	49.8	-	-	-
Direct debits	455.8	156.0	-	-	-
Titres Interbancaires de Paiement	47.1	23.0	-	-	-
ATM withdrawals	192.7	65.0	-	-	-
Card payments	13.1	0.2	-	-	-
Système Interbancaire de Télécompensation (SIT) ⁽²⁾	764.5	1,791.8	2,590.3	3,940.0	4,919.5
Credit transfers	292.3	679.8	1,081.3	1,166.4	1,242.4
LCR and paperless bills of exchange	30.5	88.7	129.3	129.3	124.8
Direct debits	258.2	636.5	850.4	927.8	987.2
Titres Interbancaires de Paiement	20.0	55.4	91.1	114.4	122.6
Card payments	0	0	1.9	1,130.1	1,922.2
ATM withdrawals	163.5	331.4	436.3	472.0	520.3
Cartes Bancaires ⁽²⁾	1,554.0	1,677.0	1,872.6	964.7	391.6
ATM withdrawals	2.6	4.8	7.7	10.5	12.3
Card payments	1,551.4	1,672.2	1,864.9	954.2	379.3
Banque de France	37.6	34.3	29.4	15.0	1.6
Public Treasury transfers	34.9	32.0	27.3	13.8	0.5
Interbank credit transfers	0.4	0.4	0.4	-	-
Large-value credit transfers	1.1	0.9	0.9	0.7	0.6
Telegraphic credit transfers	1.2	1.0	0.8	0.5	0.5
SAGITTAIRE	3.9	4.1	4.5	4.7	4.7
TBF	-	-	-	-	0.1
SNP	-	-	-	-	0.5

(1) Centres Régionaux d'Echanges d'Images-Chèques (truncated cheques).

(2) Automated clearing houses.

(3) The system closed at the end of 1994.

Table 9

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

	1993	1994	1995	1996	FRF billions 1997
Clearing houses	156,778.5	150,624.1	137,412.8	131,353.9	90,258.0
Cheques	11,130.4	11,300.9	11,025.3	11,629.9	11,550.4
Credit transfers	1,277.5	1,244.5	1,312.7	124.0	10.6
Bills of exchange	199.0	36.3	-	-	-
Avals de trésorerie	79,277.8	71,416.5	62,263.3	54,942.0	32,371.0
Large-value credit transfers	64,893.8	66,625.9	62,811.5	64,658.0	46,326.0
CREIC ⁽¹⁾⁽²⁾	140.6	143.4	155.0	161.3	156.8
Ordinateur de compensation ⁽²⁾⁽³⁾	6,731.4	3,463.7	-	-	-
Credit transfers	3,292.5	1,913.5	-	-	-
Paperless bills of exchange	2,521.6	1,230.5	-	-	-
Direct debits	786.3	267.4	-	-	-
Titres Interbancaires de Paiement	54.1	28.4	-	-	-
ATM withdrawals	73.9	23.8	-	-	-
Card payments	3.0	0.1	-	-	-
Système Interbancaire de Télécompensation (SIT) ⁽²⁾	1,615.2	5,454.5	9,625.6	12,339.7	13,820.7
Credit transfers	783.1	2,518.6	5,158.3	7,345.0	8,519.8
LCR and paperless bills of exchange	434.7	1,825.8	2,950.8	2,948.0	2,868.8
Direct debits	320.6	929.0	1,248.0	1,359.1	1,454.9
Titres Interbancaires de Paiement	15.3	59.1	112.5	179.1	213.0
Card payments	0.0	0.0	0.5	345.4	589.0
ATM withdrawals	61.5	122.0	155.5	163.1	175.2
Cartes Bancaires ⁽²⁾	510.0	537.5	594.8	317.5	121.2
ATM withdrawals	1.7	3.3	5.1	6.9	8.6
Card payments	508.3	534.2	589.7	310.6	112.6
Banque de France	44,346.3	43,741.8	36,838.4	34,822.2	27,828.2
Public Treasury transfers	457.8	429.8	470.5	480.2	213.2
Interbank credit transfers	199.8	190.5	279.2	-	-
Large-value credit transfers	36,022.6	38,107.1	29,645.6	24,532.0	19,597.0
Telegraphic credit transfers	7,666.1	5,014.4	6,443.1	9,810.0	8,018.0
SAGITTAIRE	108,750.0	110,847.0	104,567.0	113,886.0	120,377.0
TBF	-	-	-	-	28,713.0
SNP	-	-	-	-	47,608.0

(1) Centres Régionaux d'Echanges d'Images-Chèques (truncated cheques).

(2) Automated clearing houses.

(3) The system closed at the end of 1994.

Table 10

Participants in securities settlement systems
(end of 1997)

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
SATURNE	322	322	322
Banks	163	163	163
Stockbrokers	25	25	25
Securities houses	-	-	-
Insurance companies	1	1	1
Foreign central banks	54	54	54
Cedel / Euroclear	2	2	2
Others	77	77	77
RELIT	256	-	-
Banks	215	-	-
Stockbrokers	-	-	-
Securities houses	-	-	-
Others	41	-	-

Table 11

Transfer instructions handled by securities settlement systems:
volume of transactions

	1993	1994	1995	1996	1997
SATURNE	197,605	222,610	316,076	340,836	328,518
Government securities	172,254	182,109	248,056	265,376	248,584
CDs	11,597	18,170	38,857	38,839	36,479
Medium-term notes	9,542	7,859	7,687	7,126	6,905
Commercial paper	4,212	14,472	21,476	29,495	36,550
RELIT	13,000,000	15,000,000	12,000,000	13,700,000	17,800,000

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions

	1993	1994	1995	1996	1997
SATURNE	21,278.8	25,763.2	44,041.1	51,796.5	55,840.2
Government securities	19,673.0	23,306.0	40,042.9	46,441.4	49,718.4
CDs	936.6	1,470.9	2,597.5	2,973.2	3,028.3
Medium-term notes	436.7	290.3	269.2	282.7	277.1
Commercial paper	232.5	696.0	1,131.5	2,099.2	2,816.4
RELIT	20,600.0	35,500.0	42,155.0	61,166.6	77,643.7
Government securities	20,600.0	25,250.0	34,203.0	51,838.2	64,670.7
Bonds	n.a.	4,050.0	3,586.0	3,628.3	3,441.1
Shares	n.a.	6,200.0	4,366.0	5,700.1	9,531.9

Table 13

Nominal values registered by securities settlement systems
(end of year)

	1993	1994	1995	1996	FRF billions 1997
SATURNE	1,328.4	1,590.8	1,834.0	1,977.3	2,142.9
Government securities	769.8	898.9	1,018.8	1,036.1	1,153.1
CDs	232.0	304.8	389.1	401.6	456.3
Medium-term notes	279.3	305.6	316.4	335.9	325.1
Commercial paper	47.3	81.5	109.7	203.7	208.4
RELIT	6,800.0	6,350.0	6,547.6	7,614.8	8,718.6
Government securities		1,570.0	1,676.6	2,207.3	2,491.8
Bonds	3,800.0	3,650.0	2,269.0	2,147.8	2,043.9
Shares	3,000.0	2,700.0	2,602.0	3,259.7	4,182.9

Table 14

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

	1993	1994	1995	1996	millions 1997
Cheques issued	4,908.9	4,876.4	4,844.7	4,952.3	4,925.6
Payments by debit and credit cards	1,564.5	1,672.4	1,866.8	2,084.3	2,301.6
Paper-based credit transfers	66.4	58.2	53.8	33.5	15.6
<i>customer initiated</i>	58.6	51.0	47.0	29.1	12.3
<i>interbank/large-value</i>	7.8	7.2	6.8	4.4	3.3
Paperless credit transfers	1,472.8	1,556.5	1,608.5	1,748.2	1,841.8
<i>customer initiated</i>	1,468.9	1,552.4	1,604.0	1,743.5	1,836.5
<i>interbank/large-value</i>	3.9	4.1	4.5	4.7	5.3
Direct debits	999.4	1,155.3	1,205.9	1,343.9	1,430.6
Bills of exchange	154.2	151.2	142.6	142.6	137.6
Electronic money	-	-	-	n.a.	n.a.
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	n.a.	n.a.
<i>Payments by network-based products</i>	-	-	-	n.a.	n.a.
TOTAL	9,166.2	9,470.0	9,722.3	10,304.8	10,652.8

(1) These figures relate to exchanges both in interbank funds transfer systems (official exchanges) and through other circuits (interbank exchanges).

Table 15

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

	1993	1994	1995	1996	FRF billions 1997
Cheques issued	15,291	14,286	13,904	14,613	14,818
Payments by debit and credit cards	511	534	590	656	702
Paper-based credit transfers	191,426	183,850	164,099	155,406	106,768
<i>customer initiated</i>	3,366	2,496	2,656	1,464	456
<i>interbank/large-value</i>	188,060	181,354	161,443	153,942	106,312
Paperless credit transfers	117,013	119,162	113,332	125,107	208,995
<i>customer initiated</i>	8,263	8,315	8,765	11,221	12,297
<i>interbank/large-value</i>	108,750	110,847	104,567	113,886	196,698
Direct debits	2,314	2,554	2,710	3,059	3,438
Bills of exchange	3,445	3,313	3,217	3,211	3,127
Electronic money	-	-	-	n.a.	n.a.
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	n.a.	n.a.
<i>Payments by network-based products</i>	-	-	-	n.a.	n.a.
TOTAL	330,000	323,699	297,852	302,052	337,848

(1) These figures relate to exchanges both in interbank funds transfer systems (official exchanges) and through other circuits (interbank exchanges).

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	192	203	206	208	238
<i>of which:</i>					
<i>members</i>	98	103	104	101	100
<i>sub-members</i>	91	96	95	100	104
<i>participants</i>	3	4	7	7	34
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	34,258,946	36,494,832	41,025,110	43,779,359	48,756,990
<i>of which:</i>					
<i>category I</i>	8,966,621	9,608,391	10,379,951	11,084,517	12,137,346
<i>category II</i>	11,843,080	12,253,787	13,937,393	14,291,099	15,400,655
<i>sent/received to/from domestic users</i>	10,963,594	11,455,375	13,405,442	14,020,407	15,992,898
Total messages received	31,836,528	33,446,733	37,811,258	40,775,879	45,940,168
<i>of which:</i>					
<i>category I</i>	9,216,560	9,910,743	10,711,093	11,534,499	12,943,528
<i>category II</i>	12,163,096	12,224,274	13,895,771	14,011,490	14,688,233
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

Ireland

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	3,563.3	3,570.7	3,582.2	3,626.0	3,672.5
Gross domestic product (IEP billions)	33.2130	36.0513	40.1365	44.1903	49.8131
Exchange rate vis-à-vis ECU ⁽¹⁾	0.7995	0.7936	0.8155	0.7935	0.7475

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	IEP billions				
	1993	1994	1995	1996	1997
Notes and coins	1,539.4	1,656.1	1,844.3	1,968.0	2,260.0
Transferable deposits	2,394.4	2,798.6	3,225.2	3,931.0	5,198.0
Narrow money supply (M1)	3,933.8	4,454.7	5,069.5	5,899.0	7,458.0
Outstanding value on electronic money schemes	-	-	-	-	-
<i>of which:</i>					
<i>on card-based products</i>	-	-	-	-	-
<i>on network-based products</i>	-	-	-	-	-

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	IEP millions				
	1993	1994	1995	1996	1997
Required reserves held at central bank	681.9	682.0	886.2	978.0	959.0
<i>of which can be used for settlement</i>	0	0	0	0	902
Free reserves held at central bank	27.2	2.6	301.5	52.0	367.0
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				
	1993	1994	1995	1996	1997
Total banknotes issued	1,629.0	1,756.0	1,926.7	2,106.1	2,416.5
<i>of which:</i>					
<i>IEP 100</i>	5.2	4.8	4.6	26.7	54.6
<i>IEP 50</i>	186.8	191.2	206.5	229.6	303.7
<i>IEP 20</i>	1,119.8	1,264.1	1,401.1	1,524.5	1,711.3
<i>IEP 10</i>	231.4	201.8	213.6	217.6	230.2
<i>IEP 5</i>	70.3	79.1	86.1	93.1	102.2
<i>IEP 1</i> ⁽¹⁾	14.8	14.3	14.1	13.9	13.8
<i>Other notes</i> ⁽¹⁾	0.7	0.7	0.7	0.7	-
Total coins issued	144.5	149.9	165.0	179.5	200.9
Notes and coins held by credit institutions	234.1	250.1	248.0	319.0	360.0
Notes and coins in circulation outside credit institutions	1,539.4	1,656.1	1,844.3	1,968.0	2,260.0

(1) In the course of withdrawal from circulation.

Table 5**Institutional framework***(end of 1997)*

Categories	Number of institutions	Number of branches	Number of accounts (thousands) ⁽¹⁾	Value of accounts (IEP millions) ⁽¹⁾
Central bank	1	1	1	29.3
Commercial banks	44	794	5,489	4,576.0
Savings banks ⁽²⁾	3	135	755	576.0
Building societies	5	183	441	4,677.0
Post office	1	1,917	n.a.	n.a.
TOTAL	54	3,030	6,686	9,858.3
Branches of foreign banks	18	n.a.	n.a.	n.a.
<i>of which EU-based</i>	13	n.a.	n.a.	n.a.

(1) These are current accounts. Increasingly payments can be made through deposit accounts.

(2) Trustee Savings Bank and state-sponsored credit institutions.

Table 6**Cash dispensers, ATMs and EFTPOS terminals***(end of year)*

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	3	3	3	3	3
Number of machines	785	862	918	1,051	1,051
Volume of transactions (millions)	55.7	56.3	63.9	74.8	87.1
Value of transactions (IEP millions)	2,799.0	3,178.4	3,555.2	4,520.3	4,252.9
EFTPOS terminals					
Number of networks	-	-	-	n.a.	n.a.
Number of points of sale	-	-	-	4,400	5,150
Volume of transactions	-	-	-	n.a.	n.a.
Value of transactions	-	-	-	n.a.	n.a.
Electronic money loading machines					
Number of machines	-	-	-	-	-
Volume of transactions (thousands)	-	-	-	-	-
Value of transactions (millions)	-	-	-	-	-
Electronic money purchase terminals					
Number of machines	-	-	-	-	-
Volume of transactions (thousands)	-	-	-	-	-
Value of transactions (millions)	-	-	-	-	-

Table 7**Number of payment cards in circulation⁽¹⁾***(end of year)*

	1993	1994	1995	1996	1997
					thousands
Cards with a cash function	3,145	3,359	3,606	2,879	2,697
Cards with a debit/credit function	880	974	1,221	988	1,458
<i>of which:</i>					
<i>cards with a debit function</i>	<i>n.a.</i>	<i>n.a.</i>	48	123	350
<i>cards with a credit function</i>	880	974	1,173	865	1,108
Cards with a cheque guarantee function	876	830	865	822	946
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.
Electronic money cards	-	-	-	-	-

(1) 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

	1993	1994	1995	1996	1997
					thousands
Dublin Bankers' Clearing ⁽¹⁾	147,194.4	151,356.5	142,753.7	174,249.0	190,106.0
<i>Cheques</i>	91,291	91,689	91,912	111,776	121,581
<i>Direct debits</i>	18,273	18,863	22,822	31,647	35,216
<i>Credit transfers - paper</i>	15,304	17,653	5,818	5,918	6,279
<i>Credit transfers - electronic</i>	22,326	23,152	22,202	24,908	27,030
The Central Exchange (cheques) ⁽²⁾	4,305	4,678	n.a.	n.a.	n.a.
Special presentations (large-value cheques) ⁽³⁾	9.1	7.4	5.2	3.3	1.3
Daily Interbank Settlement (paper-based large-value interbank credit transfers) ⁽⁴⁾	150	153	168	152	343

- (1) The Dublin Bankers' Clearing comprises four clearing banks, one savings bank and the Central Bank. In addition, seven other banks have an interface with the DBC for the clearance of paper debits.
(2) The Central Exchange was discontinued in 1995. Members now have an interface with Dublin Bankers' Clearing.
(3) Special Presentation minimum was increased from IEP 100,000 to IEP 500,000 on 18 November 1994.
(4) IRIS RTGS system since March 1997.

Table 9

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

	1993	1994	1995	1996	1997
					IEP billions
Dublin Bankers' Clearing ⁽¹⁾	171.4	313.3	193.7	157.7	294.3
<i>Cheques</i>	133.4	130.7	156.4	109.2	245.9
<i>Direct debits</i>	5.2	5.6	5.2	5.6	7.2
<i>Credit transfers - paper</i>	28.5	172.2	28.8	38.7	24.2
<i>Credit transfers - electronic</i>	4.3	4.8	3.3	4.2	17.0
The Central Exchange (cheques) ⁽²⁾	7.2	9.1	n.a.	n.a.	n.a.
Special presentations (large-value cheques) ⁽³⁾	7.6	8.4	8.0	6.7	9.0
Daily Interbank Settlement (paper-based large-value interbank credit transfers) ⁽⁴⁾	929.6	853.1	608.2	738.9	2,425.9

- (1) The Dublin Bankers' Clearing comprises four clearing banks, one savings bank and the Central Bank. In addition, seven other banks have an interface with the DBC for the clearance of paper debits.
(2) The Central Exchange was discontinued in 1995. Members now have an interface with Dublin Bankers' Clearing.
(3) Special Presentation minimum was increased from IEP 100,000 to IEP 500,000 on 18 November 1994.
(4) IRIS RTGS system since March 1997.

Table 10
Participants in securities settlement systems
(end of 1997)

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
Central Bank of Ireland Securities Settlement Office (CBISSO)	40	11	8
Banks	15	-	6
Stockbrokers	10	-	-
Securities houses	9	9	-
Insurance companies	4	-	-
Foreign central banks	-	-	-
Cedel / Euroclear	-	2	-
Authorities	2	-	2

Notes:

- 1) Banks and building societies are included in the "bank" category.
- 2) Nominee companies are classified as securities houses.
- 3) Data for banks and securities houses reflect nominee companies of banks operating several accounts under one CBISSO membership. Banks in this instance are not direct members of the CBISSO, but hold stock on their own behalf and on behalf of customers.

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

	1993	1994	1995	1996	1997
Central Bank of Ireland Securities Settlement Office (CBISSO)					
Government securities	30,515	29,052	41,104	70,383	73,338

Table 12
Transfer instructions handled by securities settlement systems:
value of transactions

	IEP millions				
	1993	1994	1995	1996	1997
Central Bank of Ireland Securities Settlement Office (CBISSO)					
Government securities	66,158	79,320	139,811	389,175	644,821

Table 13
Nominal values registered by securities settlement systems
(end of year)

	IEP millions				
	1993	1994	1995	1996	1997
Central Bank of Ireland Securities Settlement Office (CBISSO)					
Government securities	14,144	14,439	15,288	16,351	17,210

Table 14

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

	1993	1994	1995	1996	millions 1997
Cheques issued ⁽¹⁾	164.3	155.8	154.3	191.9	200.0
<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	21.1	22.7	28.5	31.4	34.8
Paper-based credit transfers	37.6	38.1	58.3	51.9	59.5
<i>customer initiated</i>	<i>37.4</i>	<i>37.9</i>	<i>58.1</i>	<i>51.7</i>	<i>59.2</i>
<i>interbank/large-value</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.3</i>
Paperless credit transfers	33.2	35.3	34.7	40.2	46.2
<i>customer initiated</i>	<i>33.2</i>	<i>35.3</i>	<i>34.7</i>	<i>40.2</i>	<i>46.2</i>
<i>interbank/large-value</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i> ⁽²⁾
Direct debits	31.4	32.4	41.7	54.7	60.8
Electronic money	-	-	-	-	-
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	-	-
<i>Payments by network-based products</i>	-	-	-	-	-
TOTAL	287.6	284.3	317.5	370.1	401.3

(1) This category does not include the use of payment instruments to obtain cash and does not include travellers' cheques.

(2) IRIS RTGS system, which commenced in March 1997, is an automated S.W.I.F.T. paperless credit transfer system.

Table 15

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

	1993	1994	1995	1996	IEP billions 1997
Cheques issued ⁽¹⁾	323.4	342.1	350.5	322.0	721.8
<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	0.9	1.0	1.4	1.6	0.2
Paper-based credit transfers	1,187.5	1,119.2	811.7	1,132.7	2,844.6
<i>customer initiated</i>	<i>257.9</i>	<i>266.2</i>	<i>203.5</i>	<i>393.8</i>	<i>2,425.9</i>
<i>interbank/large-value</i>	<i>929.6</i>	<i>853.1</i>	<i>608.2</i>	<i>738.9</i>	<i>721.8</i>
Paperless credit transfers	32.3	35.3	33.0	38.7	61.9
<i>customer initiated</i>	<i>32.3</i>	<i>35.3</i>	<i>33.0</i>	<i>38.7</i>	<i>61.9</i>
<i>interbank/large-value</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i> ⁽²⁾
Direct debits	33.7	36.4	39.9	42.7	54.6
Electronic money	-	-	-	-	-
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	-	-
<i>Payments by network-based products</i>	-	-	-	-	-
TOTAL	1,577.8	1,534.0	1,236.5	1,537.7	3,683.1

(1) This category does not include the use of payment instruments to obtain cash and does not include travellers' cheques.

(2) IRIS RTGS system, which commenced in March 1997, is an automated S.W.I.F.T. paperless credit transfer system.

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	24	38	46	51	55
<i>of which:</i>					
<i>members</i>	7	11	13	13	13
<i>sub-members</i>	15	18	21	23	25
<i>participants</i>	2	9	12	15	17
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	1,701,064	2,002,311	2,485,986	2,905,351	3,608,935
<i>of which:</i>					
<i>category I</i>	337,317	426,779	562,098	656,950	783,846
<i>category II</i>	513,719	587,531	735,867	786,581	955,814
<i>sent/received to/from domestic users</i>	293,511	414,670	635,647	761,784	936,523
Total messages received	1,973,674	2,206,878	2,679,787	3,270,756	4,392,502
<i>of which:</i>					
<i>category I</i>	531,871	628,096	766,105	864,594	1,018,241
<i>category II</i>	280,613	338,556	450,953	535,854	679,023
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

Italy

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	57,049	57,203	57,301	57,397	57,496
Gross domestic product (ITL billions)	1,550,150	1,641,105	1,770,949	1,873,494	1,951,215
Exchange rate vis-à-vis ECU ⁽¹⁾	1,840.33	1,913.95	2,130.14	1,958.96	1,929.30

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	ITL billions				
	1993	1994	1995	1996	1997
Notes and coins	89,769	96,221	98,281	100,113	107,433
Transferable deposits	473,943	488,055	490,240	509,035	544,776
<i>of which held by:</i>					
<i>households</i>	349,532	357,766	355,924	378,456	405,796
<i>corporate sector</i>	83,117	92,597	93,118	91,581	96,645
<i>others</i> ⁽¹⁾	41,294	37,692	41,198	38,998	42,335
Others ⁽²⁾	14,760	15,702	15,971	13,125	14,095
Narrow money supply (M1)	578,472	599,978	604,492	622,273	666,304
Outstanding value on electronic money schemes (ITL millions)	-	-	-	-	1,442
<i>of which:</i>					
<i>on card-based products (ITL millions)</i>	-	-	-	-	1,442
<i>on network-based products</i>	-	-	-	-	-

(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				
	1993	1994	1995	1996	1997
Required reserves held at central bank ⁽¹⁾	105,796	92,468	73,736	71,958	82,626
<i>of which can be used for settlement</i>	7,406	7,397	7,373	8,995	18,591
Free reserves held at central bank	121	151	202	244	323
Transferable deposits at other institutions	52,455	56,352	64,156	85,319	97,331

(1) Average reserves for the period from 15 December to 14 January.

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

	ITL billions				
	1993	1994	1995	1996	1997
Total banknotes issued	93,508	100,025	103,249	106,106	114,074
<i>of which:</i>					
ITL 500,000	-	-	-	-	3,919
ITL 100,000	66,862	72,346	74,815	78,264	81,677
ITL 50,000	20,662	21,531	22,177	21,429	21,873
ITL 10,000	3,903	3,996	4,077	4,173	4,299
ITL 5,000	848	905	938	967	1,016
ITL 2,000	346	333	292	270	255
ITL 1,000	887	914	950	1,003	1,035
Coins in circulation	1,722	1,763	1,897	1,986	2,130
Notes and coins held by credit institutions	5,461	5,567	6,865	7,979	8,771
Notes and coins in circulation outside credit institutions	89,769	96,221	98,281	100,113	107,433

Table 5**Institutional framework***(end of 1997)*

Categories	Number of institutions	Number of branches	Number accounts (thousands)	Value of accounts (ITL billions)
Central bank	1	99	-	-
Commercial banks	283	18,234	22,223	445,445
Savings banks	-	-	-	-
Co-operative and rural banks	652	7,016	4,795	92,658
Post office	1	14,587	511	6,673
TOTAL	937	39,936	27,529	544,776
Branches of foreign banks:	55	82	21	3,724
<i>of which EC-based</i>	38	63	15	1,768

Table 6**Cash dispensers, ATMs and EFTPOS***(end of year)*

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	1	1	1	1	1
Number of machines	15,227	18,672	21,670	24,223	25,500
Volume of transactions (thousands)	214,665	276,928	330,490	367,762	411,643
Value of transactions (ITL billions)	63,995	85,389	106,756	115,051	129,493
EFTPOS terminals					
Number of networks	-	-	-	-	-
Number of points of sale ⁽¹⁾	77,206	104,051	153,752	214,705	281,526
Volume of transactions (thousands) ⁽²⁾	56,454	89,190	121,565	169,187	253,696
Value of transactions (ITL billions) ⁽²⁾	11,469	16,808	23,475	30,867	46,162
Electronic money loading machines					
Number of machines	-	-	-	n.a.	945
Volume of transactions (thousands)	-	-	-	n.a.	n.a.
Value of transactions (millions)	-	-	-	n.a.	3,730
Electronic money purchase terminals					
Number of machines	-	-	-	n.a.	4,406
Volume of transactions (thousands)	-	-	-	n.a.	294
Value of transactions (millions)	-	-	-	n.a.	3,878

(1) Number of machines.

(2) With debit and credit cards.

Table 7**Number of payment cards in circulation ⁽¹⁾***(end of year)*

	1993	1994	1995	1996	1997
					thousands
Cards with a cash function	11,295	12,396	13,824	15,270	17,317
Cards with a debit/credit function	16,279	18,210	20,482	22,549	24,521
<i>of which:</i>					
<i>cards with a debit function</i>	10,555	12,124	13,791	14,906	15,693
<i>cards with a credit function</i>	5,724	6,086	6,691	7,643	8,828
Cards with a cheque guarantee function	1,674	1,766	1,655	1,151	894
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.
Electronic money cards ⁽²⁾	-	-	-	n.a.	62

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

(2) Data refer to the cards in circulation which have been loaded by users.

Table 8

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

	1993	1994	1995	1996	thousands 1997
BI-COMP					
LOCAL CLEARING	253,189	240,676	235,665	225,622	217,577
Cheques	250,617	238,504	233,698	223,927	215,827
<i>out-of-town cheques</i>	85,703	85,782	90,259	89,061	91,822
Bills of exchange ⁽¹⁾	1,019	-	-	-	-
Credit transfers	325	283	263	151	104
Other items ⁽²⁾	1,228	1,889	1,704	1,544	1,646
ELECTRONIC MEMORANDA	1,896	2,083	1,810	1,651	1,452
Interbank deposits	1,005	731	725	776	763
Foreign operations	533	562	208	82	41
Credit transfers	187	221	285	145	53
Other items ⁽³⁾	171	569	592	648	595
INGROSSO (SIPS)	3,111	3,526	4,462	5,326	6,057
RETAIL	451,171	489,582	586,865	664,097	710,609
Cheque truncation	321,354	287,179	283,937	287,635	285,659
Bancomat	56,114	61,616	74,383	91,117	103,529
Collection orders	73,703	140,333	154,061	170,648	189,529
Credit transfers	-	454	74,484	114,637	129,169
Other items ⁽⁴⁾	-	-	-	60	2,723
BI-REL ⁽⁵⁾	1,056	1,016	1,027	1,129	2,694
Large value and cross border credit transfers	-	-	-	-	1,566
Interbank credit transfers (BISS)	43	43	46	50	82
Payments between banks and the Banca d'Italia or the Treasury	1,013	973	981	1,079	1,046

(1) Since 1994 bills of exchange are included among the "other items".

(2) Includes settlement of securities transactions (for 1992); payments between the banking system and the Treasury, the Banca d'Italia or the Postal Administration and Bills of Exchange (from 1994).

(3) In particular settlement of securities transactions.

(4) Mainly transactions through e-money; interests and dividends on the securities deposited at the Monte Titoli; transactions with debit cards at the Post Office; electronic notification of unpaid cheques.

(5) Debits/credits for the settlement of clearing balances are not included.

Table 9

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

	1993	1994	1995	1996	ITL billions 1997
BI-COMP					
LOCAL CLEARING	4,622,317	4,255,270	3,574,629	2,897,869	2,561,307
Cheques	1,583,041	1,587,415	1,635,293	1,647,404	1,645,946
<i>out-of-town cheques</i>	622,365	629,890	659,491	661,971	692,263
Bills of exchange ⁽¹⁾	40,394	-	-	-	-
Credit transfers	732,001	634,657	593,773	254,402	64,600
Other items ⁽²⁾	2,266,881	2,033,198	1,345,563	996,063	850,761
ELECTRONIC MEMORANDA	17,067,600	17,972,187	18,408,052	23,099,794	25,225,920
Interbank deposits	11,698,000	11,782,702	11,557,140	15,052,765	16,641,197
Foreign operations	987,000	894,808	493,336	327,058	224,848
Credit transfers	716,000	857,732	1,029,143	796,409	225,524
Other items ⁽³⁾	3,666,600	4,436,945	5,328,433	6,923,562	8,134,351
INGROSSO (SIPS)	18,293,744	25,928,601	27,377,138	34,530,551	41,511,463
RETAIL	492,310	675,298	1,239,833	1,582,504	1,789,819
Cheque truncation	288,342	286,985	290,343	298,483	299,915
Bancomat	16,152	17,821	21,303	25,818	29,173
Collection orders	187,816	367,504	468,342	520,246	570,125
Credit transfers	-	2,988	459,845	731,562	863,538
Other items ⁽⁴⁾	-	-	-	6,395	27,068
BI-REL ⁽⁵⁾	2,619,500	2,428,800	2,737,756	2,719,900	4,374,800
Large value and cross border credit transfers	-	-	-	-	1,529,000
Interbank credit transfers (BISS)	81,200	109,900	137,956	139,200	303,000
Payments between banks and the Banca d'Italia or the Treasury	2,538,300	2,318,900	2,599,800	2,580,700	2,542,800

(1) Since 1994 bills of exchange are included among the "other items".

(2) Payments between the banking system and the Treasury, the Banca d'Italia or the Postal Administration and Bills of Exchange (from 1994).

(3) In particular, settlement of securities transactions.

(4) Mainly transactions through e-money; interests and dividends on the securities deposited at the Monte Titoli; transactions with debit cards at the Post Office; electronic notification of unpaid cheques.

(5) Debits/credits for the settlement of clearing balances are not included.

Table 10

Participants in securities settlement systems
(end of 1997)

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
LDT	281	276	151
Banks	158	155	151
Stockbrokers	42	42	-
Securities investment firms	81	79	-
CAT	741	447	485
Banks	485	241	485
Stockbrokers	33	33	-
Securities investment firms	107	63	-
Others	116	110	-
MONTE TITOLI	426	420	220
Banks	220	215	220
Stockbrokers	53	53	-
Securities investment firms	108	107	-
Others	45	45	-

Table 11

Transfer instructions handled by securities settlement systems:
volume of transactions

	1993	1994	1995	1996	1997
LDT ⁽¹⁾	10,777,761	14,127,128	16,236,625	23,476,342	30,609,421
Government securities	4,047,605	5,343,790	8,164,353	10,637,127	10,816,889
Equity bonds	930,618	834,641	931,054	1,357,638	1,657,081
Shares	5,799,538	7,948,697	7,141,218	11,481,577	18,135,451
CAT (government securities)	561,176	845,792	960,553	1,004,258	927,001
MONTE TITOLI (corporate securities) ⁽²⁾	66,585	68,433	79,349	107,400	134,348

(1) Bilateral credit and debit balances.

(2) Transfer instructions carried out directly through the accounts held at the Monte Titoli. The data only refer to bonds.

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions

	1993	1994	1995	1996	ITL billions 1997
LDT ⁽¹⁾	9,562,669	12,539,583	15,134,844	29,882,833	42,069,723
Government securities	9,264,315	12,100,697	14,801,877	29,344,943	41,017,980
Equity bonds	55,547	37,619	45,405	89,648	84,139
Shares	242,807	401,267	287,562	448,242	967,604
CAT ⁽²⁾ (government securities)	1,884,042	1,743,402	1,575,070	1,805,554	2,240,512
MONTE TITOLI (corporate securities) ⁽³⁾	51,880	48,926	31,667	68,619	132,150

(1) Bilateral balances.

(2) Figures refer to the nominal value of securities.

(3) Transfer instructions carried out directly through the accounts held at the Monte Titoli. The data refer only to the nominal value of the bonds exchanged.

Table 13

Nominal values registered by securities settlement systems
(end of year)

				ITL billions	
	1993	1994	1995	1996	1997
CAT (government securities)	1,445,448	1,686,211	1,797,191	1,895,621	1,924,588
MONTE TITOLI (corporate securities)	115,947	148,002	158,652	209,259	286,289

Table 14

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

	1993	1994	1995	1996	millions 1997
Cheques issued	621.6	574.8	563.6	676.9	656.8
<i>of which truncated</i>	321.3	285.2	270.0	273.9	272.8
Payments by debit and credit cards	81.7	100.6	130.6	190.5	263.9
Paper-based credit transfers	20.0	2.9	2.7	2.6	1.0
<i>customer initiated</i> ⁽²⁾	17.8	-	-	-	-
<i>interbank/large-value</i>	2.2	2.9	2.7	2.6	1.0
Paperless credit transfers	856.2	911.5	919.1	941.4	975.0
<i>customer initiated</i> ⁽²⁾	851.3	906.1	913.1	934.5	968.4
<i>interbank/large-value</i>	4.9	5.4	6.0	6.9	6.6
Direct debits	73.2	78.7	90.9	162.8	200.7
Electronic money	-	-	-	-	0.3
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	-	0.3
<i>Payments by network-based products</i>	-	-	-	-	-
Others	159.0	153.1	157.3	242.5	249.7
<i>paper-based transactions</i> ⁽³⁾	59	47	33	59.3	58.6
<i>paperless transactions</i> ⁽⁴⁾	100	107	125	183.2	191.1
TOTAL	1,811.7	1,821.6	1,864.2	2,216.7	2,347.4

- (1) Up to 1995 the figures for payment operations effected by banking instruments were provided by seventy-five banks accounting for approximately 80% of the current account deposits in all banking systems. Since 1996 figures relate to the entire system.
- (2) Excluding payments between credit institutions and their customers, and payments to and from accounts held under the same name at 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 executed through the banking system.

Table 15

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

					ITL billions
	1993	1994	1995	1996	1997
Cheques issued	2,170,124	2,108,124	2,190,634	2,544,373	2,557,610
<i>of which truncated</i>	288,342	291,749	284,763	247,656	291,880
Payments by debit and credit cards	15,671	19,218	24,718	34,562	47,070
Paper-based credit transfers	5,237,552	4,352,098	3,945,363	3,576,763	2,542,800
<i>customer initiated</i> ⁽²⁾	432,371	-	-	-	-
<i>interbank/large-value</i>	4,805,181	4,352,098	3,945,363	3,576,763	2,542,800
Paperless credit transfers	39,170,808	48,123,253	50,168,310	62,804,524	72,653,507
<i>customer initiated</i> ⁽²⁾	4,444,264	4,970,266	5,274,307	5,831,388	6,927,326
<i>interbank/large-value</i>	34,726,544	43,152,987	44,894,003	56,973,136	65,726,181
Direct debits	89,095	106,721	116,309	158,429	250,904
Electronic money	-	-	-	-	4
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	-	4
<i>Payments by network-based products</i>	-	-	-	-	-
Others	452,127	463,821	534,787	777,969	802,781
<i>paper-based transactions</i> ⁽³⁾	186,729	164,891	133,844	230,079	214,859
<i>paperless transactions</i> ⁽⁴⁾	265,398	298,930	400,943	547,890	587,922
TOTAL	47,135,377	55,173,235	56,980,121	69,896,620	78,854,676

- (1) Up to 1995 the figures for payment operations effected by banking instruments were provided by seventy-five banks accounting for approximately 80% of the current account deposits in all banking systems. Since 1996 figures relate to the entire system.
- (2) Excluding payments between credit institutions and their customers, and payments to and from accounts held under the same name at 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 executed through the banking system.

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	215	218	219	227	227
<i>of which:</i>					
<i>members</i>	187	186	182	185	181
<i>sub-members</i>	28	32	36	40	44
<i>participants</i>	-	-	1	3	2
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	22,572,543	24,681,961	27,584,947	30,081,128	31,672,855
<i>of which:</i>					
<i>category I</i>	6,845,876	7,596,603	8,360,220	8,903,858	7,968,583
<i>category II</i>	5,904,935	6,063,052	6,512,180	6,659,465	7,091,972
<i>sent/received to/from domestic users</i>	3,751,213	4,235,252	4,959,227	5,419,805	4,127,570
Total messages received	22,189,826	25,066,961	28,480,765	31,508,461	32,742,840
<i>of which:</i>					
<i>category I</i>	6,930,817	8,061,681	9,502,849	10,487,061	9,980,426
<i>category II</i>	4,758,663	5,448,679	6,239,393	6,736,480	6,881,867
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

Luxembourg

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	398.1	403.8	409.7	415.5	421.0
Gross domestic product (LUF billions)	444.3	487.7	511.2	525.4	563.9
Exchange rate vis-à-vis ECU ⁽²⁾	40.4713	30.6565	38.5519	39.2986	40.5332

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	LUF billions				
	1993	1994	1995	1996	1997
Notes and coins	16.3	15.7	15.9	16.6	18.3
Transferable deposits	70.8	88.8	86.8	94.8	96.7
Narrow money supply (M1)	87.1	104.5	102.7	111.4	115.0
Other	-	-	-	-	-
Outstanding value on electronic money schemes	-	-	-	-	-
<i>of which:</i>					
<i>on card-based products</i>	-	-	-	-	-
<i>on network-based products</i>	-	-	-	-	-

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	LUF billions				
	1993	1994	1995	1996	1997
Required reserves held at central bank	-	-	-	-	-
Free reserves held at central bank	-	-	-	-	-
Transferable deposits at other credit institutions	n.a.	n.a.	n.a.	n.a.	n.a.
Broad money aggregate	n.a.	n.a.	n.a.	n.a.	n.a.

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

	1993	1994	1995	1996	LUF millions 1997
Total banknotes issued	5,398.1	4,845.3	4,203.7	5,007.1	4,975.9
<i>of which:</i>					
<i>LUF 5,000</i>	2,717.7	2,950.6	2,749.0	3,298.0	3,497.7
<i>LUF 1,000</i>	2,398.3	1,613.7	1,191.7	1,465.5	1,284.1
<i>LUF 100</i>	282.1	281.0	263.0	243.6	194.1
Total coins issued	853.6	919.5	926.7	926.8	926.8
Notes and coins held by credit institutions	4,171.4	4,265.1	4,428.8	4,734.5	4,863.2
Notes and coins in circulation outside credit institutions ⁽¹⁾	16,300	15,700	15,900	16,600	16,400

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

Table 5**Institutional framework***(end of 1997)*

Categories	Number of institutions	Number of branches	Number of accounts (thousands)	Value of accounts (LUF billions)
Central bank	1	-	-	-
Commercial banks	215	365	1,494	2,800
Savings banks	-	-	-	-
Co-operative and rural banks	2	35	n.a.	n.a.
Post Office	1	-	104	34
TOTAL	219	400	1,598	2,834
Branches of foreign banks	68	n.a.	n.a.	n.a.
<i>of which EC-based</i>	<i>61</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

Table 6**Cash dispensers, ATMs and EFTPOS terminals***(end of year)*

	1993 ⁽¹⁾	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	2	2	2	2	2
Number of machines	117	151	187	223	258
Volume of transactions (millions)	3.8	4.1	3.8	4.1	4.1
Value of transactions (LUF billions)	17.6	20.3	17.3	19.0	18.9
EFTPOS terminals					
Number of networks	3	3	3	3	3
Number of points of sale ⁽¹⁾	3,340	3,663	3,340	4,661	4,661
Volume of transactions (millions)	8.8	11.8	15.0	16.0	19.1
Value of transactions (LUF billions)	23.5	32.2	39.2	43.4	51.3
Electronic money loading machines					
Number of machines	-	-	-	-	-
Volume of transactions (thousands)	-	-	-	-	-
Value of transactions (millions)	-	-	-	-	-
Electronic money purchase terminals					
Number of machines	-	-	-	-	-
Volume of transactions (thousands)	-	-	-	-	-
Value of transactions (millions)	-	-	-	-	-

(1) Electronic terminals only.

Table 7**Number of payment cards in circulation ⁽¹⁾***(end of year)*

	1993	1994	1995	1996	1997
					thousands
Cards with a cash function	331.7	359.8	420.9	471.3	515.9
Cards with a debit/credit function	393.2	421.6	485.0	534.3	580.1
<i>of which:</i>					
<i>cards with a debit function</i>	183.7	209.5	260.7	290.2	328.7
<i>cards with a credit function</i>	209.5	212.1	224.3	244.0	251.4
Cards with a cheque guarantee function	239.7	248.6	260.7	290.2	300.7
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.
Electronic money cards	-	-	-	-	-

(1) 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

	1993	1994	1995	1996	millions 1997
Clearing house	6.0	6.3	6.5	6.7	7.0
Automated clearing house	n.a.	n.a.	2.2	3.6	4.3
Large-value systems	n.a.	n.a.	n.a.	n.a.	n.a.

Table 9

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

	1993	1994	1995	1996	LUF billions 1997
Clearing house	808.3	801.4	599.0	529.2	503.4
Automated clearing house	n.a.	n.a.	158.4	114.4	101.8
Large-value systems	n.a.	n.a.	n.a.	n.a.	n.a.

Table 10

Participants in securities settlement systems
(end of 1997)

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
CEDEL	n.a.	n.a.	n.a.

Table 11

Transfer instructions handled by securities settlement systems:
volume of transactions

	1993	1994	1995	1996	1997
CEDEL	6,638,429	6,670,027	7,068,945	7,428,508	7,643,766

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions

	1993	1994	1995	1996	LUF billions 1997
CEDEL	207,994.5	223,766.9	277,868.58	398,604.63	433,541.7
Short and medium-term notes	38,450.5	40,998.2	53,980.6	69,723.5	77,488.6

Table 13

Nominal values registered by securities settlement systems
(end of year)

	LUF billions				
	1993	1994	1995	1996	1997
CEDEL					
Market value of securities deposited as of 31st December	25,919.6	27,723.9	30,106.89	37,496.3	39,590.0

Table 14

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

	millions				
	1993	1994 ⁽¹⁾	1995	1996	1997
Cheques issued	n.a.	2.5	n.a.	n.a.	n.a.
Payments by debit and credit cards	n.a.	15.5	n.a.	n.a.	n.a.
Credit transfers	n.a.	30.0	n.a.	n.a.	n.a.
Direct debits	n.a.	2.0	n.a.	n.a.	n.a.
Electronic money	-	-	-	-	-
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	-	-
<i>Payments by network-based products</i>	-	-	-	-	-
Others	n.a.	-	n.a.	n.a.	n.a.
TOTAL	n.a.	50.0	n.a.	n.a.	n.a.

- (1) These figures were based on an estimate from an ad hoc enquiry performed in December 1995. This enquiry includes the intra-bank credit transfers.
Inter-bank credit transfers amounted to 17.3 million transactions and to a global value of LUF 4,378.7 million.

Table 15

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

	LUF millions				
	1993	1994 ⁽¹⁾	1995	1996	1997
Cheques issued	n.a.	145	n.a.	n.a.	n.a.
Payments by debit and credit cards	n.a.	49	n.a.	n.a.	n.a.
Credit transfers	n.a.	9,644	n.a.	n.a.	n.a.
Direct debits	n.a.	38	n.a.	n.a.	n.a.
Electronic money	-	-	-	-	-
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	-	-
<i>Payments by network-based products</i>	-	-	-	-	-
Others	n.a.	-	n.a.	n.a.	n.a.
TOTAL	n.a.	9,877	n.a.	n.a.	n.a.

- (1) These figures were based on an estimate from an ad hoc enquiry performed in December 1995. This enquiry includes the intrabank credit transfers.
Interbank credit transfers amounted to 17.3 million transactions and to a global value of LUF 4,378.7 million.

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	128	140	150	156	158
<i>of which:</i>					
<i>members</i>	23	26	29	27	29
<i>sub-members</i>	105	114	121	127	125
<i>participants</i>	-	-	-	2	4
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	10,269,903	11,334,220	12,280,307	13,810,105	16,613,659
<i>of which:</i>					
<i>category I</i>	2,064,159	2,212,835	2,496,990	2,578,108	2,706,042
<i>category II</i>	3,617,697	3,658,917	3,692,809	3,974,317	4,567,451
<i>sent/received to/from domestic users</i>	1,748,639	1,952,674	2,158,482	2,408,283	2,903,884
Total messages received	8,651,024	9,611,417	10,784,350	12,881,997	16,280,473
<i>of which:</i>					
<i>category I</i>	1,026,732	1,051,652	1,158,863	1,190,481	1,365,912
<i>category II</i>	1,060,877	1,040,092	1,097,793	1,206,425	1,400,894
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,55

Definitions

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

Netherlands

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	15,290	15,381	15,457	15,531	15,609
Gross domestic product (NLG billions)	581.460	612.990	635.010	667.640	703.691
Exchange rate vis-à-vis ECU ⁽¹⁾	2.17521	2.15827	2.09891	2.13973	2.21081

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	NLG billions				
	1993	1994	1995	1996	1997
Notes and coins	37.6	38.1	38.2	38.3	38.7
Transferable deposits	112.1	114.1	134.8	156.4	170.4
<i>of which held by:</i>					
<i>households</i>	45.6	47.0	51.7	59.4	63.5
<i>corporate sector</i>	53.9	54.5	65.2	77.5	84.0
<i>other</i>	12.6	12.6	17.8	19.5	23.0
Narrow money supply (M1)	149.6	152.2	173.0	194.7	209.1
Outstanding value on electronic money schemes	n.a.	n.a.	n.a.	n.a.	n.a.
<i>of which:</i>					
<i>on card-based products</i>	n.a.	n.a.	n.a.	n.a.	n.a.
<i>on network-based products</i>	n.a.	n.a.	n.a.	n.a.	n.a.

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	NLG millions				
	1993	1994	1995	1996	1997
Required reserves held at central bank	15,783	11,361	-	-	6,112
<i>of which can be used for settlement ⁽¹⁾</i>	15,783	11,361	-	-	6,112
Free reserves held at central bank	42	25	37	59	20
Transferable deposits at other institutions	3,118	2,462	3,061	3,116	2,382

(1) As collateral.

NETHERLANDS

Table 4

Banknotes and coins

(total value, end of year)

	1993	1994	1995	1996	1997
					NLG billions
Total banknotes issued	37.8	38.3	38.6	38.9	39.3
<i>of which:</i>					
NLG 1,000	15.5	15.8	14.9	14.4	14.5
NLG 250	4.7	5.0	5.2	5.4	5.3
NLG 100	13.4	13.2	13.8	14.6	14.8
NLG 50	1.7	1.8	1.9	1.7	1.8
NLG 25	1.7	1.8	1.8	2.0	2.0
NLG 10	0.8	0.8	0.8	0.8	0.8
NLG 5	0.1	0.1		0	0
Total coins issued	2.6	2.6	2.7	2.7	2.8
<i>of which:</i>					
NLG 5.00	0.9	0.9	0.9	1.0	1.0
NLG 2.50	0.5	0.5	0.5	0.5	0.5
NLG 1.00	0.7	0.7	0.7	0.7	0.7
NLG 0.25	0.3	0.3	0.3	0.3	0.3
NLG 0.10	0.2	0.2	0.2	0.2	0.2
NLG 0.5	0.1	0.1	0.1	0.1	0.1
Notes and coins held by institutions	2.8	2.8	3.1	3.4	3.4
Notes and coins in circulation outside credit institution	37.6	38.3	38.2	38.3	38.7

Table 5

Institutional framework

(end of 1997)

Categories	Number of institutions	Number of branches	Number of accounts (thousands)	Value of accounts (NLG billions)
Central bank	1	9	-	-
Commercial banks	98	2,888	n.a.	n.a.
Savings banks	26	26	n.a.	n.a.
Co-operative and rural banks	1	1,823	n.a.	n.a.
Postbank	1	2,325	n.a.	n.a.
TOTAL	127	7,071	21,700	170
Branches of foreign banks	22	-	n.a.	n.a.
<i>of which EC-based</i>	11	-	n.a.	n.a.

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

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	2	2	2	2	2
Number of machines	4,461	4,998	5,489	5,793	6,401
Volume of transactions (millions)	314	367	425	456	521
Value of transactions (NLG billions)	56	65	74	81	89
EFTPOS terminals					
Number of networks	1	1	1	1	1
Number of points of sale	24,549	47,588	73,376	96,044	120,417
Volume of transactions (millions)	67	144	256	371	486
Value of transactions (NLG billions)	7	14	24	35	46
Electronic money loading machines					
Number of machines	n.a.	n.a.	n.a.	n.a.	n.a.
Volume of transactions (thousands)	n.a.	n.a.	n.a.	n.a.	n.a.
Value of transactions (millions)	n.a.	n.a.	n.a.	n.a.	n.a.
Electronic money purchase terminals					
Number of machines	n.a.	n.a.	n.a.	n.a.	n.a.
Volume of transactions (thousands)	n.a.	n.a.	n.a.	n.a.	n.a.
Value of transactions (millions)	n.a.	n.a.	n.a.	n.a.	n.a.

Table 7
Number of payment cards in circulation ⁽¹⁾
(end of year)

	1993	1994	1995	1996	1997
					thousands
Cards with a cash function	13,107	13,988	16,419	18,933	24,037
Cards with a debit/credit function	1,257	1,257	1,493	1,846	2,541
<i>of which:</i>					
<i>cards with a debit function</i>	1,257	1,257	1,493	1,846	2,541
<i>cards with a credit function</i>	n.a.	n.a.	n.a.	n.a.	n.a.
Cards with a cheque guarantee function	1,796	1,297	724	591	411
Retailer cards	n.a.	n.a.	n.a.	n.a.	n.a.
Electronic money cards	n.a.	n.a.	n.a.	n.a.	n.a.

(1) 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

	1993	1994	1995	1996	millions 1997
Interpay	1,136.1	1,241.7	1,407.1	1,588.5	1,782.9
Cheques	110.4	86.3	63.2	50.6	39.9
Other	1,025.7	1,155.4	1,343.9	1,537.9	1,743.0
TOP ⁽¹⁾	2.3	2.4	2.5	2.7	3.1
Cheques	-	-	-	-	-
Other	2.3	2.4	2.5	2.7	3.1

(1) Merge of 8007 S.W.I.F.T. and the Central Bank FA System.

Table 9

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

	1993	1994	1995	1996	NLG billions 1997
Interpay	2,207.4	2,195.0	2,189.1	2,319.5	2,512.9
Cheques	16.7	13.4	9.9	8.4	6.6
Other	2,190.7	2,181.6	2,179.2	2,311.1	2,506.3
TOP ⁽¹⁾	18,311.1	19,322.2	18,791.0	22,613.8	26,972.6
Cheques	-	-	-	-	-
Other	18,311.1	19,322.2	18,791.0	22,613.8	26,972.6

(1) Merge of 8007 S.W.I.F.T. and the Central Bank FA System.

Table 10
Participants in securities settlement systems ⁽¹⁾
(end of 1997)

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
Necigef ⁽²⁾	73	64	68
Banks ⁽³⁾	48	48	48
Stockbrokers	-	-	-
Securities houses ⁽⁴⁾	16	16	16
Cedel / Euroclear	-	-	-
CSDs	5	-	-
Money market brokers	4	-	4
Depositories of participants	-	-	-
AEX Effectenclearing	28	-	-
General clearing members	13	-	-
Direct clearing members	15	-	-
AEX Optieclearing ⁽⁵⁾			
Clearing members	14	-	-

(1) As of 1st January 1998.

(2) Necigef data refer to deliveries against payment.

(3) Including DNB.

(4) Including AEX-Effectenclearing and AEX-Optieclearing.

(5) AEX Optieclearing data refer to derivatives contracts.

Table 11

Transfer instructions handled by securities settlement systems:
volume of transactions

	thousands				
	1993	1994	1995	1996	1997
Necigef	1,244	1,061	906	1,325	1,685
Deliveries against payment	0	0	0	286	529
Free transfers	1,244	1,061	906	1,039	1,156
Clearing institute central bank	2	2	3	3	3
AEX Effectenclearing	1,195	1,155	1,350	2,300	3,800
AEX Optieclearing ⁽¹⁾	n.a.	13,999	17,163	28,665	48,942
Options, contracts cleared	n.a.	12,604	15,873	26,975	46,166
Futures, contracts cleared	n.a.	1,395	1,290	1,690	2,776
Options, contracts exercised	n.a.	1,139	1,343	1,945	2,978
Futures, contracts exercised	n.a.	56	32	48	74

(1) Figures refer to contracts cleared.

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions

	NLG billions				
	1993	1994	1995	1996	1997
Necigef	0	0	0	295	569
Deliveries against payment	0	0	0	295	569
Free transfers	n.a.	n.a.	n.a.	n.a.	n.a.
Clearing institute central bank	49	79	100	127	187
CDs	16	25	50	45	44
CPs	17	40	37	60	120
MTNs	16	15	13	22	23
AEX Effectenclearing	509	580	681	984	1,107
Government securities	356	397	433	597	488
Bonds	28	27	49	63	63
Shares	125	156	200	323	556
AEX Optieclearing ⁽¹⁾	n.a.	107	110	200	505
Options, contracts cleared	n.a.	8	9	19	56
Futures, contracts cleared	n.a.	99	101	181	448
Options, contracts exercised	n.a.	19	19	35	66
Futures, contracts exercised	n.a.	5	3	6	13

(1) Figures refer to contracts cleared.

Table 13

Nominal values registered by the securities settlement systems
(end of year)

	NLG billions				
	1993	1994	1995	1996	1997
Necigef	394.7	414.0	425.2	471.2	501.5
Clearing institute central bank	41	57	66	64	64
CDs	7	14	16	12	14
CPs	7	11	16	18	17
MTNs	27	32	34	33	34

Table 14

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

	millions				
	1993	1994	1995	1996	1997
Cheques issued	219.0	177.0	133.7	104.2	81.0
Payments by debit and credit cards	61.3	125.8	255.9	370.9	485.5
Paper-based credit transfers	403.6	390.5	381.4	374.3	372.0
<i>customer initiated</i>	403.6	390.5	381.4	374.3	372.0
<i>interbank/large-value</i>	-	-	-	-	-
Paperless credit transfers	800.9	849.9	906.2	954.4	1,009.8
<i>customer initiated</i>	798.6	847.4	903.8	951.7	1,006.7
<i>interbank/large-value</i>	2.3	2.4	2.5	2.7	3.1
Direct debits	479.5	531.0	597.5	658.9	725.1
Electronic money	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
of which:					
<i>Payments by card-based products</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Payments by network-based products</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
TOTAL	1,964.3	2,074.2	2,274.7	2,462.7	2,673.3

Table 15

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

	NLG billions				
	1993	1994	1995	1996	1997
Cheques issued	30.9	25.2	19.3	15.9	12.5
Payments by debit and credit cards	6.8	14.4	24.3	35.3	46.2
Paper-based credit transfers	150.3	145.0	136.6	129.5	128.5
<i>customer initiated</i>	150.3	145.0	136.6	129.5	128.5
<i>interbank/large-value</i>	-	-	-	-	-
Paperless credit transfers	20,962.5	21,953.9	21,394.9	25,303.7	29,815.3
<i>customer initiated</i>	2,651.4	2,631.8	2,603.8	2,689.9	2,842.8
<i>interbank/large-value</i>	18,311.1	19,322.2	18,791.0	22,613.8	26,972.6
Direct debits	229.8	239.8	259.8	281.3	314.6
Electronic money	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
of which:					
<i>Payments by card-based products</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Payments by network-based products</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
TOTAL	21,380.2	22,378.4	21,834.9	25,765.7	30,317.1

NETHERLANDS

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	59	55	62	65	65
<i>of which:</i>					
<i>members</i>	30	27	28	28	29
<i>sub-members</i>	28	28	32	34	32
<i>participants</i>	1	-	2	3	4
Memorandum item:					
Total S.W.I.F.T. world-wide	4,256	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,244	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,887	2,023	2,259	2,404	2,590
<i>participants</i>	125	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	14,543,442	15,253,265	16,903,885	18,667,326	21,967,507
<i>of which:</i>					
<i>category I</i>	6,474,480	6,508,032	6,747,310	7,032,141	7,544,714
<i>category II</i>	2,912,403	3,107,787	3,275,847	3,420,058	3,951,510
<i>sent/received to/from domestic users</i>	1,996,747	1,750,991	1,870,671	2,052,952	2,456,699
Total messages received	13,983,712	14,538,364	16,027,297	17,802,379	20,199,570
<i>of which:</i>					
<i>category I</i>	5,169,497	5,279,922	5,498,322	5,726,242	6,205,747
<i>category II</i>	2,066,993	2,081,037	2,204,721	2,362,906	2,602,689
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

Austria

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	7,991	8,030	8,047	8,059	8,072
Gross domestic product (ATS billions)	2,124.1	2,262.9	2,272.3	2,421.6	2,518.2
Exchange rate vis-à-vis ECU ⁽¹⁾	13.63	13.54	13.18	13.43	13.82

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	ATS billions				
	1993	1994	1995	1996	1997
Notes and coins ⁽¹⁾	127.4	133.6	142.7	146.7	146.2
Transferable deposits ⁽²⁾	207.2	222.0	266.4	284.5	306.1
Narrow money supply (M1) ⁽¹⁾	334.6	355.6	409.1	431.2	452.3
Transferable deposits in foreign currencies	24.7	27.2	27.9	34.5	35.5
Outstanding value on electronic money schemes	-	-	-	0.03	0.03
of which:					
on card-based products	-	-	-	0.03	0.03
on network-based products	-	-	-	-	-

(1) Without coins in gold and silver.

(2) In local currency only.

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	ATS billions				
	1993	1994	1995	1996	1997
Required reserves held at central bank	58.44	61.47	55.10	56.50	57.70
Free reserves held at central bank ⁽¹⁾	0.01	-	-	-	-
Transferable deposits at other institutions ⁽²⁾	207.19	222.01	253.19	279.30	294.30

(1) Average of end-of-month figures.

(2) Average of end-of-quarter figures.

AUSTRIA

Table 4

Banknotes and coins

(total value, end of year)

	1993	1994	1995	1996	ATS millions 1997
Total banknotes issued (banknotes in circulation)	234,733.40	245,907.76	259,792.11	169,224.40	171,125.38
<i>of which denomination belongs to the new series:</i>					
5,000/I	33,471.97	38,294.52	43,878.27	50,507.76	54,657.73
1,000/IV	79,556.04	82,061.12	85,650.17	86,434.23	52,882.98
500/III	11,961.47	12,396.72	12,729.17	12,822.25	8,335.18
100/VI	12,415.95	12,809.57	13,221.72	13,464.20	13,637.76
50/IV	2,118.53	2,194.90	2,241.05	2,296.58	2,297.97
20/V	1,875.94	1,962.02	2,044.26	2,118.13	2,168.71
<i>old series:</i>					
1,000/III	695.47	660.72	621.79	589.28	567.20
1,000/IV	79,556.04	82,061.12	85,650.17	86,434.23	30,491.87
500/III	11,961.47	12,396.72	12,729.17	12,822.25	5,122.96
500/II	291.45	274.17	257.08	244.38	233.99
100/V	393.65	377.31	363.35	351.81	341.97
50/III	175.17	168.20	162.60	158.21	154.37
20/IV	260.25	250.67	243.31	237.57	232.69
Total coins issued (coins in circulation)	6,537.94	6,890.62	7,194.56	7,503.54	7,720.51
<i>of which denomination:</i>					
ATS 50	-	-	-	49.52	114.90
ATS 20	435.12	470.57	496.83	517.88	513.44
ATS 10	2,560.60	2,702.62	2,832.98	2,949.32	3,004.96
ATS 5	1,699.10	1,782.38	1,848.43	1,912.33	1,963.12
ATS 1	1,320.09	1,390.86	1,451.99	1,498.72	1,540.63
ATS 0.50	245.27	254.46	263.62	267.75	271.17
ATS 0.10	260.42	272.33	283.32	290.74	295.12
ATS 0.05	12.92	12.97	12.96	12.87	12.76
ATS 0.02	4.18	4.19	4.19	4.18	4.17
ATS 0.01	0	0	0.24	0.24	0.24
Notes and coins held by credit institutions	22,309	24,767	25,869.00	30,059.00	32,635.00
Notes and coins in circulation outside credit institutions	127,445	133,574	142,738.34	146,668.94	146,210.89

Table 5

Institutional framework

(end of 1997)

Categories	Number of institutions	Number of branches	Number of accounts (thousands)	Value of accounts (ATS billions)
Central bank	1	7	0.6	46.3
Credit institutions	994	4,691	5,846.0	306.1
Postcheque	1	2,331	n.a.	n.a.
TOTAL	996	7,029	5,846.6	352.4
Branches of foreign banks	8	-	2.0	0.5
<i>of which EC-based</i>	6	-	1.0	0.4

Table 6**Cash dispensers, ATMs and EFTPOS terminals***(end of year)*

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks ⁽¹⁾	1	1	1	1	1
Number of machines ⁽²⁾	2,558	3,063	3,390	3,862	4,300
Volume of transactions (millions) ⁽³⁾	57.7	63.5	68.2	74.2	78.7
Value of transactions (ATS billions) ⁽³⁾	105.6	118.3	129.1	141.1	146.8
EFTPOS terminals					
Number of networks ⁽¹⁾	1	1	1	1	1
Number of POS terminals	1,831	2,410	3,382	5,095	13,331
Volume of transactions (millions)	6.7	8.9	11.1	15.1	24.0
Value of transactions (ATS billions)	3.5	5.1	7.2	11.2	17.8
Electronic money loading machines					
Number of machines	-	-	-	1,066	3,495
Volume of transactions (thousands)	-	-	-	48.3	159.6
Value of transactions (millions)	-	-	-	29.7	110.0
Electronic money purchase terminals					
Number of machines	-	-	-	3,333	12,756
Volume of transactions (thousands)	-	-	-	86.6	426
Value of transactions (millions)	-	-	-	17.5	78.0

(1) APSS network.

(2) Including vestibule cash dispensers (1993: 994; 1994: 1,242; 1995: 1,397; 1996: 1,698).

(3) Without vestibule cash dispensers.

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

	1993	1994	1995	1996	1997
					thousands
Cards with a cash function	3,243	3,512	3,853	4,113	4,652
Cards with a debit/credit function	3,712	4,022	4,418	4,759	5,340
<i>of which:</i>					
<i>cards with a debit function</i>	2,779	3,003	3,292	3,566	4,041
<i>cards with a credit function</i>	933	1,019	1,126	1,193	1,299
Cards with a cheque guarantee function	2,396	2,324	2,370	2,372	2,444
Retailer cards	188	224	22	81	100
Electronic money cards	-	-	17	3,101	3,400

Table 8

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

	1993	1994	1995	1996	1997
ARTIS	0.72	0.89	0.91	0.92	0.95

Table 9

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

	1993	1994	1995	1996	1997
ARTIS	5,443	6,295	6,370	7,685	6,820

Table 10

Participants in securities settlement systems
(end of 1997)

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
"Arrangement" system (transactions on the Vienna Stock Exchange)	70	-	-
Banks	67	-	-
Stockbrokers	3	-	-
Securities houses	-	-	-
Foreign central banks	-	-	-
Cedel / Euroclear	-	-	-
Direct Settlement (DS) (transactions outside the VSE)	126	-	-
Banks	113	-	-
Stockbrokers	8	-	-
Securities houses	-	-	-
Insurance companies	-	-	-
Foreign central banks	-	-	-
Cedel / Euroclear	1	-	-
Foreign CSD	4	-	-
ÖTOB-Clearing (for standardised derivative products)	7	7	-
Banks	7	7	-
Stockbrokers	-	-	-
Securities houses	-	-	-
Insurance companies	-	-	-
Foreign central banks	-	-	-
Cedel / Euroclear	-	-	-

Table 11

Transfer instructions handled by securities settlement systems:
volume of transactions

	1993	1994	1995	1996	1997
"Arrangement" system ⁽¹⁾ (transactions on the Vienna Stock Exchange)	263,452	298,375	1,016,669	659,830	1,446,870
Government securities	5,095	11,176	35,921	37,064	) 134,460
Bonds	41,786	52,431	100,752	110,626)
Shares	216,571	234,768	879,996	426,184	822,371
CDs	n.a.))))
Others (warrants, investment certificates)	)	)	)	85,956	490,039
Futures	-	-	-	-	-
Options	-	-	-	-	-
Direct Settlement (DS) system (transactions outside the VSE) ⁽²⁾	77,166	139,914	295,808	313,345	276,431
Government securities	11,043	28,252	93,349	112,804	99,515
Bonds	17,706	39,884	77,377	75,202	66,343
Shares	48,417	71,778	125,082	125,339	110,573
CDs))	-))
Others (warrants, investment certificates)))	-))
Futures	-	-	-	-	-
Options	-	-	-	-	-
ÖTOB-Clearing (for standardised derivative products) ⁽³⁾	135,121	124,443	139,929	109,790	110,216
Government securities	-	-	-	-	-
Bonds	-	-	-	-	-
Shares	-	-	-	-	-
CDs	-	-	-	-	-
Others (warrants, investment certificates)	-	-	-	-	-
Futures	12,734	24,131	28,473	21,774	33,004
Options	122,387	100,312	111,456	88,016	77,212

(1) In 1993: a breakdown into sub-items has been available since week 12.

(2) Database: central securities depository (CSD); the DS system was started on 3 March 1991.

(3) ÖTOB started on 4 October 1991.

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions

	1993	1994	1995	1996	ATS millions 1997
"Arrangement" system ⁽¹⁾ (transactions on the Vienna Stock Exchange) ⁽²⁾	56,261	64,703	285,815	246,833	324,783
Government securities	5,876	5,579	18,978	20,130	14,253
Bonds)))))
Shares	48,494	57,298	266,618	226,451	310,429
CDs	-	-	-))
Warrants	1,804	1,721	121	153	40
Investment certificates	87	105	98	99	61
Futures	-	-	-	-	-
Options	-	-	-	-	-
Direct Settlement (DS) system (transactions outside the VSE) ⁽³⁾	579,020	1,780,266	2,862,477	6,489,107	4,125,492
Government securities	225,222	778,613	1,422,324	3,833,698	2,340,458
Bonds	237,528	884,896	1,025,988	2,451,053	1,496,358
Shares	60,537	50,535	246,698	204,356	288,676
CDs	55,733	66,222	167,467))
Others (warrants, investment certificates))))))
Futures	-	-	-	-	-
Options	-	-	-	-	-
ÖTOB-Clearing (for standardised derivative products) ⁽⁴⁾	424,860	704,560	515,490	743,270	761,407
Government securities	-	-	-	-	-
Bonds	-	-	-	-	-
Shares	-	-	-	-	-
CDs	-	-	-	-	-
Futures	122,890	320,120	44,250	402,100	460,759
Options	301,970	384,440	471,240	341,170	300,648

(1) In 1993: a breakdown into sub-items has been available since week 12.

(2) Turnover on the Vienna Stock Exchange (VSE).

(3) Database: central securities depository (CSD); the DS system was started on 3 March 1991.

(4) ÖTOB started on 4 October 1991.

Table 13**Nominal values registered by securities settlement systems***(end of year)*

	1993	1994	1995	1996	ATS millions 1997
"Arrangement" system (transactions on the Vienna Stock Exchange) ⁽¹⁾	1,443,304	1,448,587	1,552,662	1,641,155	1,800,024
Government securities and bonds	1,113,301	1,127,246	1,238,273	1,283,664	1,348,076
Shares, CDs and others	330,003	321,341	314,389	357,491	451,948
Direct Settlement (DS) system (transactions outside the VSE) ⁽²⁾	1,050,851	1,135,401	1,230,233	1,282,701	1,409,081
Government securities and bonds	1,050,064	1,133,766	1,229,101	1,281,497	1,407,850
Shares, CDs and others ⁽²⁾	787	1,635	1,132	1,204	1,231

(1) Total value.

(2) Securities registered by the central securities depository (CSD), for government securities and bonds: nominal value; for shares, CDs and others: in millions of units.

Table 14

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

	millions				
	1993	1994	1995	1996	1997
Cheques issued	40	36	33	28	26
Payments by debit and credit cards	17	20	25	32	44
Paper-based credit transfers	304	310	282	277	266
Paperless credit transfers	98	122	150	185	200
Direct debits	188	188	210	205	219
Electronic money	-	-	-	0.08	0.42
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	0.08	0.42
<i>Payments by network-based products</i>	-	-	-	-	-
Other (ARTIS)	0.72	0.89	0.91	0.92	0.96
TOTAL	647.72	676.89	700.91	728.00	755.96

(1) Apart from the EBK system, only customer-initiated transactions have been counted.

Table 15

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

	ATS billions				
	1993	1994	1995	1996	1997
Cheques issued	996	1,009	1,014	546	469
Payments by debit and credit cards	23	25	32	40	48
Paper-based credit transfers	3,209	3,407	3,169	5,877	5,374
Paperless credit transfers	1,221	1,593	2,004	5,180	5,584
Direct debits	400	401	457	525	1,098
Electronic money	-	-	-	0.002	0.08
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	0.002	0.08
<i>Payments by network-based products</i>	-	-	-	-	-
Other (ARTIS)	5,443	6,295	6,370	6,434	6,820
TOTAL	11,292	12,730	13,046	18,602	19,393

(1) Apart from the EBK system, only customer-initiated transactions have been counted.

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	75	77	75	77	81
<i>of which:</i>					
<i>members</i>	62	62	61	62	62
<i>sub-members</i>	13	15	14	15	16
<i>participants</i>	-	-	-	-	3
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	10,803,051	11,725,379	12,829,110	13,480,754	14,531,271
<i>of which:</i>					
<i>category I</i>	4,421,615	4,739,357	4,974,386	5,163,626	5,221,236
<i>category II</i>	2,697,142	2,969,812	3,273,130	3,304,533	3,593,009
<i>sent/received to/from domestic users</i>	2,488,985	2,698,880	2,843,140	2,945,226	3,269,698
Total messages received	8,823,926	9,521,143	10,439,996	11,141,807	12,239,259
<i>of which:</i>					
<i>category I</i>	3,614,711	3,892,118	4,027,894	4,195,693	4,420,556
<i>category II</i>	1,518,477	1,692,293	1,906,614	2,039,355	2,192,675
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

Portugal

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	9,880.7	9,902.2	9,916.5	9,927.0	9,946.0
Gross domestic product (PTE billions)	13,209.6	14,082.6	15,073.2	16,636.3	17,627.9
Exchange rate vis-à-vis ECU ⁽¹⁾	188.370	196.896	196.105	195.761	198.589

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	PTE billions				
	1993	1994	1995	1996	1997
Notes and coins	752.9	795.8	841.0	867.2	776.1
Transferable deposits	2,808.6	2,965.3	3,348.8	3,795.8	4,547.6
<i>of which held by:</i>					
<i>households</i>	1,607.5	1,732.6	2,086.0	2,235.1	2,641.4
<i>corporate sector</i>	991.4	1,057.9	983.5	1,199.5	1,476.1
<i>other</i>	209.7	174.8	279.3	361.0	430.1
Other	153.7	93.4	64.5	79.4	115.2
Narrow money supply (M1)	3,715.2	3,854.5	4,254.3	4,784.9	5,438.9
Deposits in foreign currencies	126.5	509.3	178.0	204.9	257.9
Outstanding value on electronic money schemes	-	0.3	0.4	0.4	0.4
<i>of which:</i>					
<i>on card-based products</i>	-	0.3	0.4	0.4	0.4
<i>on network-based products</i>	-	-	-	-	-

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	PTE billions				
	1993	1994	1995	1996	1997
Required reserves held at central bank ⁽¹⁾	2,042.2	330.9	264.2	364.9	410.1
<i>of which can be used for settlement</i>	2,042.2	330.9	264.2	364.9	410.1
Free reserves held at central bank	7.1	3.7	6.5	1.2	4.3
Transferable deposits at other institutions	18.1	23.7	46.3	28.0	55.8
Memorandum item:					
Broad money aggregate	9,843.1	10,783.7	11,664.4	12,593.5	13,372.5

(1) Including free reserves held at the central bank.

Table 4

Banknotes and coins

(total value, end of year)

	PTE billions				
	1993	1994	1995	1996	1997
Total banknotes issued	808.3	841.2	894.9	937.0	975.5
<i>of which:</i>					
PTE 10,000	274.3	281.4	317.0	296.4	279.2
PTE 5,000	408.9	431.4	438.3	490.1	539.2
PTE 2,000	50.0	57.8	68.0	76.7	84.4
PTE 1,000	61.4	56.7	56.8	59.1	56.6
PTE 500	13.7	13.9	14.8	14.7	16.1
PTE 100	-	-	-	-	-
Total coins issued	41.7	44.4	46.2	48.6	52.8
<i>of which:</i>					
PTE 200	8.8	8.8	8.8	8.8	9.8
PTE 100	13.3	13.3	13.3	13.2	13.7
PTE 50	5.3	5.3	5.3	5.3	5.3
PTE 20	4.0	4.0	4.0	4.0	4.0
PTE 10	1.3	1.3	1.3	1.4	1.5
PTE 5	1.2	1.2	1.3	1.3	1.4
PTE 2.5	1.4	1.3	1.2	1.2	1.2
PTE 1	0.4	0.4	0.4	0.4	0.4
PTE 0.5	0.1	0.1	0.1	0.1	0.1
Commemorative	5.9	8.7	10.5	12.9	15.4
Notes and coins held by credit institutions	97.1	88.8	97.9	116.5	145.8
Notes and coins in circulation outside credit institutions	752.9	795.8	841.0	867.2	776.1

Table 5

Institutional framework

(end of 1997)

Categories	Number of institutions	Number of branches	Number of	Value of
			accounts (thousands)	accounts (PTE billions)
Central bank	1	11	-	-
Commercial banks	60	3,976	18,479.5	4,547.6
Mutual agricultural credit banks and savings banks	177	527	1,270.6	258.5
Post office	1	1,100	58.0	1.1
Treasury	1	1	-	-
TOTAL	240	5,615	19,808.1	4,807.22
Branches of foreign banks	17	99	55.4	113.5
<i>of which EC-based</i>	14	96	46.3	111.5

Table 6**Cash dispensers, ATMs and EFTPOS terminals***(end of year)*

	1993	1994	1995	1996	1997
Cash dispensers and ATMs ⁽¹⁾					
Number of networks	1	1	1	1	1
Number of machines	2,797	3,329	3,674	5,366	6,280
Volume of transactions (millions)	94.3	116.1	136.8	180.9	210.5
Value of transactions (PTE billions)	1,007.3	1,236.9	1,450.0	2,147.9	2,526.0
EFTPOS terminals					
Number of networks	1	1	1	1	1
Number of points of sale	n.a.	25,318	29,364	39,865	47,185
Number of machines	27,554	32,700	38,178	49,533	59,899
Volume of transactions (millions)	75.4	90.3	124.2	174.9	219.5
Value of transactions (PTE billions)	448.2	573.7	745.1	832.8	1,042.4
Electronic money loading machines					
Number of machines ⁽²⁾	-	-	5,484	7,622	5,129
Volume of transactions (thousands)	-	-	309	777	683
Value of transactions (millions)	-	-	853	2,322	2,186
Electronic money purchase terminals					
Number of machines	-	-	30,760	55,646	63,703
Volume of transactions (thousands)	-	-	1,648	6,235	5,913
Value of transactions (millions)	-	-	608	2,303	2,193

(1) From 1996 includes figures for ATMs of the banks' internal networks not operated by SIBS.

(2) Includes ATM terminals.

Table 7**Number of payment cards in circulation ⁽¹⁾***(end of year)*

	1993	1994	1995	1996	1997
					thousands
					1997
Cards with a cash function	4,799	5,291	6,266	7,024	8,132
Cards with a debit/credit function	6,101	6,759	7,113	7,815	9,098
<i>of which:</i>					
<i>cards with a debit function</i>	5,095	5,669	6,266	7,024	8,132
<i>cards with a credit function</i>	1,006	1,090	1,298	1,437	1,818
Cards with a cheque guarantee function	526	542	564	654	529
Retailer cards	86	91	115	137	235
Electronic money cards	-	-	161	299	384

(1) 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

	1993	1994	1995	1996	millions 1997
GROSS SETTLEMENT SYSTEMS					
SPGT	-	-	-	0.4	0.5
SLOD	-	-	-	0.03	0.03
NET SETTLEMENT SYSTEMS					
Telecompensação (teleclearing)	216.4	424.2	485.4	576.6	668.6
cheques	209.6	214.2	219.9	227.5	234.3
other ^{(1) (2)}	6.8	210.0	265.5	-	-
TEI	n.a.	n.a.	n.a.	11.9	13.6
MULTIBANCO	n.a.	n.a.	n.a.	332.1	414.6
EFEITOS(Bills of exchange)	n.a.	n.a.	n.a.	5.1	6.1
Traditional clearing	13.1	12.1	11.6	10.4	7.6
cheques	7.7	6.8	6.6	6.6	5.5
other ⁽³⁾	5.4	5.3	5.0	3.8	2.1

(1) Mainly electronic transfers.

(2) "Telecompensação/Multibanco" was not included until 1994.

(3) Mainly payment transfers.

Table 9

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

	1993	1994	1995	1996	PTE billions 1997
GROSS SETTLEMENT SYSTEMS					
SPGT	-	-	-	495,192	729,855
SLOD	-	-	-	8,200	8,260
NET SETTLEMENT SYSTEMS					
Telecompensação (teleclearing)	49,258	50,045	86,524	97,084	68,293
cheques	47,030	44,642	46,433	49,886	54,264
other ^{(1) (2)}	2,228	5,403	40,091	-	-
TEI	n.a.	n.a.	n.a.	43,964	10,212
MULTIBANCO	n.a.	n.a.	n.a.	2,566	3,105
EFEITOS(Bills of exchange)	n.a.	n.a.	n.a.	668	712
Traditional clearing	149,842	177,119	154,274	1,841	1,388
cheques	1,489	1,346	1,383	1,412	1,282
other ⁽³⁾	148,353	175,773	152,891	429	106

(1) Mainly electronic transfers.

(2) "Telecompensação/Multibanco" was not included until 1994.

(3) Mainly payment transfers.

Table 10
Participants in securities settlement systems
(end of 1997)

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
INTERBOLSA	58	58	58
Banks	37	37	37
Stockbrokers	20	20	20
Securities houses	-	-	-
Insurance companies	-	-	-
Foreign central banks	-	-	-
Cedel / Euroclear	-	-	-
Others (Treasury bodies)	1	1	1
OPORTO DERIVATIVES EXCHANGE	26	-	26
Banks	16	-	16
Stockbrokers	10	-	10
SISTEM	108	-	108
Banks	52	-	52
Stockbrokers	7	-	7
Securities houses	3	-	3
Insurance companies	-	-	-
Foreign central banks	-	-	-
Cedel / Euroclear	-	-	-
Others (public bodies)	4	-	4
Others (leasing companies; factoring companies; credit-purchase finance companies)	42	-	42

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

	1993	1994	1995	1996	1997
					thousands
INTERBOLSA	n.a.	422.4	475.5	717.2	1,787.9
Cash Market ⁽¹⁾	n.a.	420.7	468.4	696.2	1,761.7
Special Market for Wholesale Transactions in Government Securities ^{(1) (2)}	n.a.	1.7	7.1	21.0	26.2
OPORTO DERIVATIVES EXCHANGE ⁽³⁾	-	-	-	0.2	0.4
Futures	-	-	-	0.2	0.4
Options	-	-	-	-	-
Repos	-	-	-	-	0
SISTEM	9.5	18.3	5.0	3.1	3.3
Government Securities	7.7	15.7	2.3	1.5	1.3
Others (securities issued by the Banco de Portugal)	1.8	2.6	2.7	1.6	2.0

(1) This figure cannot be subdivided.

(2) In 1994: figure for the period from June to December.

(3) Since June 1996.

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions

					PTE billions
	1993	1994	1995	1996	1997
INTERBOLSA	4,028	6,597	7,999	28,239	37,004
Cash Market ⁽¹⁾	4,028	5,089	3,196	7,111	12,043
Special Market for Wholesale Transactions in Government Securities ⁽²⁾	n.a.	1,508	4,803	21,128	24,961
OPORTO DERIVATIVES EXCHANGE ⁽³⁾	-	-	-	35	290
Futures	-	-	-	35	150
Options	-	-	-	-	-
Repos	-	-	-	-	140
SISTEM	20,048	27,666	25,200	16,674	23,128
Government Securities	8,902	19,387	6,997	4,475	3,471
Others (securities issued by the Banco de Portugal)	11,146	8,279	18,203	12,199	19,657

(1) This figure cannot be subdivided.

(2) In 1994: stock exchange operations only.

(3) Since June 1996.

Table 13

Nominal values registered by securities settlement systems
(end of year)

					PTE billions
	1993	1994	1995	1996	1997
INTERBOLSA	5,633	7,075	9,040	10,197	12,049
Government securities	3,697	3,785	4,540	4,913	5,150
Bonds	766	1,256	1,674	2,241	2,984
Shares	1,093	1,882	2,615	2,819	3,697
CDs	-	-	-	-	-
Participating bonds	65	113	77	73	51
Units of collective investment undertakings	12	39	134	151	167
OPORTO DERIVATIVES EXCHANGE ⁽¹⁾	-	-	-	9	16
Futures	-	-	-	9	16
Options	-	-	-	-	-
Repos	-	-	-	-	-
SISTEM	1,000	3,179	3,203	2,962	2,315
Government securities	976	1,325	1,348	1,418	1,087
Bonds	-	-	-	-	-
Shares	-	-	-	-	-
CDs	-	-	-	-	-
Securities issued by the Banco de Portugal	24	1,854	1,855	1,544	1,228

(1) Since June 1996.

Table 14

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

	1993	1994	1995	1996	millions 1997
Cheques issued	258.8	255.5	236.1	261.9	267.2
<i>of which truncated</i>	183.0	187.8	193.7	201.0	217.9
Payments by debit and credit cards ⁽¹⁾	104.1	114.0	140.0	196.8	251.7
Paper-based credit transfers	5.4	4.3	3.8	5.8	4.4
<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 ⁽²⁾	25.0	38.0	36.8	38.6	42.8
<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>
Direct debits	28.4	43.3	58.5	65.0	67.9
Bills of exchange	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	6.1	6.7
Electronic money	-	-	1.6	6.2	5.9
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	1.6	6.2	5.9
<i>Payments by network-based products</i>	-	-	-	-	-
TOTAL	421.7	455.1	476.8	580.4	646.6

(1) Before 1997 does not include retailer cards.

(2) Since February 1996 includes transfers of the RTGS system, which were previously processed through the netting systems.

Table 15

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

	1993	1994	1995	1996	PTE billions 1997
Cheques issued	61,975.5	61,619.0	52,265.4	56,782.9	61,289.5
<i>of which truncated</i>	6,253.7	6,280.0	6,631.0	7,370.0	11,661.0
Payments by debit and credit cards ⁽¹⁾	739.0	743.2	919.1	1,120.7	1,418.4
Paper-based credit transfers	5,461.1	14,332.3	18,972.3	17,741.1	20,023.2
<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 ⁽²⁾	6,954.2	7,655.2	16,806.8	552,176.3	753,327.6
<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	1,219.7	4,506.8	3,945.6	4,447.8	4,952.9
Bills of exchange	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,279.2	1,273.6
Electronic money	-	-	0.6	2.3	2.2
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	0.6	2.3	2.2
<i>Payments by network-based products</i>	-	-	-	-	-
TOTAL	76,349.5	88,856.5	92,909.8	633,550.3	842,287.3

(1) Before 1997 does not include retailer cards.

(2) Since February 1996 includes transfers of the RTGS system, which were previously processed through the netting systems.

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	38	39	43	44	46
<i>of which:</i>					
<i>members</i>	25	26	29	30	29
<i>sub-members</i>	13	13	14	14	16
<i>participants</i>	-	-	-	-	1
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	3,233,630	3,578,502	4,010,814	4,345,301	4,897,672
<i>of which:</i>					
<i>category I</i>	754,622	853,872	977,018	1,023,514	1,185,554
<i>category II</i>	864,483	883,332	978,193	1,011,152	1,055,148
<i>sent/received to/from domestic users</i>	373,081	430,960	483,748	404,919	436,757
Total messages received	3,107,307	3,339,670	3,679,672	3,950,010	4,503,748
<i>of which:</i>					
<i>category I</i>	803,862	894,471	988,755	1,040,731	1,156,416
<i>category II</i>	541,420	591,849	637,447	640,528	768,321
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

Finland

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	5,066	5,088	5,108	5,125	5,140
Gross domestic product (FIM billions)	482.4	509.9	545.7	574.8	615.7
Exchange rate vis-à-vis ECU ⁽¹⁾	6.6973	6.1908	5.7086	5.8282	5.8806

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	FIM billions				
	1993	1994	1995	1996	1997
Notes and coins ⁽¹⁾	10.4	10.8	12.4	13.6	14.5
Transferable deposits	131.4	143.6	163.5	191.2	201.6
Narrow money supply (M1)	141.8	154.4	175.9	204.8	216.1
Transferable deposits in foreign currencies	14.8	12.8	13.7	12.4	12.3
Outstanding value on electronic money	-	5.0	9.9	10.4	1.8
Schemes (FIM millions)					
<i>of which:</i>					
<i>on card-based products</i>	-	5.0	9.9	10.4	1.8
<i>on network-based products</i> ⁽²⁾	-	-	-	0	0

(1) Cash in ATMs is included in this item from the year 1994, because Automatia Ltd., the company that has governed cash - dispensing ATMs since 1994, is not a credit institution. Values of cash in ATMs were (FIM millions) 218 (1994), 418 (1995), 788 (1996) and 872 (1997).

(2) The network-based system started its operation in March 1996. So far outstanding amounts have been very small.

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	FIM billions				
	1993	1994	1995	1996	1997
Required reserves held at central bank	6.4	6.5	15.7	6.8	7.9
Free reserves held at central bank	1.8	1.4	1.1	1.5	2.8
Transferable deposits at other institutions	4.2	4.3	2.5	2.8	5.1

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

	FIM millions				
	1993	1994	1995	1996	1997
Total banknotes issued	13,443	12,381	13,625	14,836	15,689
<i>of which:</i>					
<i>FIM 1,000</i>	4,053	3,829	4,440	5,153	5,580
<i>FIM 500</i>	2,593	2,287	2,505	2,562	2,597
<i>FIM 100</i>	5,490	5,196	5,541	6,008	6,430
<i>FIM 50</i>	721	647	693	654	616
<i>FIM 20</i>	284	364	396	413	423
<i>FIM 10</i>	273	58	50	45	43
<i>FIM 5</i>	21	-	-	-	-
<i>FIM 1</i>	8	-	-	-	-
Total coins issued	1,297	1,284	1,365	1,439	1,494
<i>of which:</i>					
<i>FIM 10</i>	208	326	365	392	415
<i>FIM 5</i>	434	416	428	436	440
<i>FIM 1</i>	387	371	390	414	429
<i>50 penniä</i>	114	85	86	92	97
<i>20 penniä</i>	31	-	-	-	-
<i>10 penniä</i>	96	86	96	106	113
<i>5 penniä</i>	19	-	-	-	-
<i>1 penniä</i>	8	-	-	-	-
Notes and coins held by credit institutions	4,600	3,504	3,210	3,246	3,300
Notes and coins in circulation outside credit institutions	10,394	10,810	12,401	13,645	14,517
<i>of which cash in ATMs</i>	-	218	418	788	872
Memorandum items:					
<i>Commemorative coins ⁽¹⁾</i>	255	262	281	283	309
<i>Notes and coins which ceased to be legal tender on 1st January 1994</i>	-	387	339	333	326

(1) This item is included in "banknotes and coins in circulation" in the balance sheet of Suomen Pankki.

Table 5**Institutional framework***(end of 1997)*

Categories	Number of institutions	Number of branches	Number of accounts (thousands) ⁽⁴⁾	Value of accounts (FIM billions)
Central bank ⁽¹⁾	1	4	0.020	5.9
Commercial banks	14	653	7,900	116.3
Savings banks	40	246	580	18.9
Co-operative and rural banks	294	745	3,400	65.4
Post office ⁽²⁾	-	501	neg.	neg.
TOTAL⁽³⁾	349	2,149	11,880	206.5
Branches of foreign banks	6	15	n.a.	0.8
<i>of which EC-based</i>	6	15	n.a.	0.8

- (1) Number of accounts: Number of current accounts used for payment settlements.
- (2) Post offices are also used as branches of Postipankki (since June 1998 Leonia bank plc), which is a state owned commercial bank.
- (3) In 'Value of accounts': The Total differs from "Transferable deposits" in Table 2, because the central bank figures are not included in figures in table 2. There are also some differences in defining the concept "non-bank".
- (4) Estimated figures (except Central bank).

Table 6**Cash dispensers, ATMs and EFTPOS terminals***(end of year)*

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	2	1	1	1	1
Number of machines ⁽¹⁾	2,994	2,833	2,421	2,298	2,285
Volume of transactions (millions) ⁽²⁾	202.0	191.9	201.2	212.8	222.7
Value of transactions (FIM billions) ⁽²⁾	68.7	72.9	75.8	82.2	88.1
EFTPOS terminals					
Number of networks ⁽³⁾	-	-	-	-	-
Number of points of sale	42,000	48,000	49,000	51,000	54,000
Volume of transactions (millions)	173.3	195.2	217.3	236.5	261.6
Value of transactions (FIM billions)	39.0	44.9	51.9	59.5	68.6
Electronic money loading machines					
Number of machines ⁽⁴⁾	-	n.a.	100	100	2,100
Volume of transactions (thousands)	-	n.a.	20	30	27
Value of transactions (millions)	-	n.a.	4.0	8.5	3.0
Electronic money purchase terminals⁽⁵⁾					
Number of machines	-	n.a.	1,500	5,000	1,344
Volume of transactions (thousands)	-	n.a.	3,425	3,760	77
Value of transactions (millions)	-	n.a.	17.4	17.1	1.0

- (1) Only cash dispensing ATMs. The respective numbers of ATMs with funds transfer facility (bill / giro payment possibility and no cash functions) were 1477 (1993), 1984 (1994), 2153 (1995), 2363 (1996) and 2482 (1997).
- (2) Only cash withdrawals. Volumes of credit transactions via ATMs with funds transfer facility (in millions) 23 (1993), 39.6 (1994), 55.9 (1995), 67.8 (1996) and 68.3 (1997). Values of credit transactions via ATMs with funds transfer facility are not available.
- (3) Off-line system connected to merchant's bank. Local on-line systems are in pilot phase.
- (4) In 1997: In addition around 5,000 machines installed in bus stations and buses.
- (5) Figures for 1997 include only the new multipurpose card product (introduced in March 1997) that replaced previous respective products.

Table 7

Number of payment cards in circulation
(end of year)

	thousands				
	1993	1994	1995	1996	1997
Cards with a cash function	4,013	4,225	4,415	4,768	5,148
Cards with a debit/credit function	3,128	3,153	3,195	3,271	3,561
<i>of which:</i>					
<i>cards with a debit function</i>	1,901	1,956	1,962	2,071	2,211
<i>delayed debit cards</i>	835	824	844	884	907
<i>cards with a credit function</i>	392	373	389	316	443
Cards with a cheque guarantee function	9	7	7	4	3
Retailer cards	1,707	1,726	1,749	1,580	1,582
Electronic money cards ⁽¹⁾	-	468	846	1,175	189
<i>of which re-loadable cards</i>	-	7	14	18	156

(1) A new source of data has been used for 1997 which makes makes figures not comparable with previous years.

Table 8

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

	thousands				
	1993	1994	1995	1996	1997
Banks' payment clearing	356,800	373,982	355,858	267,200	277,400
Giro transfers	249,475	275,034	261,878	165,317	163,679
Debit cards	102,011	94,733	91,241	99,363	111,820
Cheques	5,124	4,159	2,739	2,520	1,901
Banks' bills ⁽¹⁾	190	56	n.a.	n.a.	n.a.
BoF-RTGS ⁽²⁾	115	105	110	99	101
Credit transfers between banks	66	63	69	63	65
Credit transfers between Suomen Pankki and the banks	49	42	41	36	36

(1) Included in cheques since 1995.

(2) Bank of Finland RTGS-system (former name Bank of Finland Interbank Funds Transfer System).

Table 9

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

	FIM billions				
	1993	1994	1995	1996	1997
Banks' payment clearing	1,672.2	1,865.4	1,972.6	2,343.5	2,183.4
Giro transfers	667.0	845.5	1,002.2	1,370.2	1,249.9
Debit cards	22.2	22.1	20.6	23.3	25.8
Cheques ⁽¹⁾	972.7	993.5	949.8	950.0	907.6
Banks' bills ⁽¹⁾	10.3	4.3	n.a.	n.a.	n.a.
BoF-RTGS ⁽²⁾	6,653.8	6,356.8	8,507.5	7,969.6	9,013.2
Credit transfers between banks	5,941.7	5,880.6	8,087.0	7,380.9	8,189.0
Credit transfers between Suomen Pankki and the banks	712.1	476.2	420.5	588.7	824.2

(1) Included in cheques since 1995.

(2) Bank of Finland RTGS-system (former name Bank of Finland Interbank Funds Transfer System).

Table 10**Participants in securities settlement systems***(end of 1997)*

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
APK ⁽¹⁾ , settlement of money market operations	17	16	13
Banks	10	9	10
Stockbrokers	3	3	-
Securities houses	-	-	-
Insurance companies	-	-	-
Foreign central banks	-	-	-
Cedel / Euroclear	-	-	-
Others	4	4	3
APK ⁽¹⁾ , settlement of shares	28	27	22
Banks	8	8	8
Stockbrokers	15	15	10
Securities houses	-	-	-
Insurance companies	-	-	-
Foreign central banks	-	-	-
Cedel / Euroclear	-	-	-
Others	5	4	4
HEX Ltd ⁽²⁾	27	27	-
Banks	10	10	-
Stockbrokers	17	17	-
Securities houses	-	-	-
Insurance companies	-	-	-
Foreign central banks	-	-	-
Cedel / Euroclear	-	-	-
Others	-	-	-
Finnish Options Exchange	15	15	-
Banks	5	5	-
Stockbrokers	10	10	-
Securities houses	-	-	-
Insurance companies	-	-	-
Foreign central banks	-	-	-
Cedel / Euroclear	-	-	-
Others	-	-	-

- (1) The Finnish Central Securities Depository (APK) Ltd. The company was established in 1997 by merging Helsinki Money Market Center and the settlement of shares in Helsinki Stock Exchange. The settlements of money market operations and share trades are executed in separate systems.
- (2) HEX Ltd, Helsinki Securities and Derivatives Exchange, Clearing House. The company was formed by merging Helsinki Stock Exchange and SOM Ltd, Securities and Derivatives Exchange, Clearing House (former Finnish Options Market). The company operates as stock and derivatives exchange and derivatives clearing house.

Table 11

Transfer instructions handled by securities settlement systems:
volume of transactions

	1993	1994	1995	1996	1997
APK ⁽¹⁾ , settlement of money market operations	43,068	44,465	41,050	46,683	61,818
Government securities	5,387	7,479	11,922	33,441	42,028
CDs	37,681	36,986	29,128	13,242	19,790
APK ⁽¹⁾ , settlement of shares	240,214	339,264	373,070	534,018	784,347
Shares	240,214	339,264	373,070	534,018	784,347
HEX Ltd ⁽²⁾	491,705	1,034,633	1,593,534	4,046,174	7,474,708
Futures	76,838	358,160	534,330	2,247,617	3,469,628
Options	414,867	676,473	1,059,204	1,798,557	4,005,080
Finnish Options Exchange	9,583	47,438	77,703	58,327	58,309
Futures	3,374	22,357	20,306	13,461	7,178
Options	6,209	25,081	57,397	44,866	51,131

(1) See footnote 1 in Table 10.

(2) See footnote 2 in Table 10.

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions

	1993	1994	1995	1996	1997
					FIM millions
APK ⁽¹⁾ , settlement of money market operations	1,403,313	1,933,791	2,039,475	2,363,296	4,196,737
Government securities	230,844	333,286	570,254	1,562,161	3,045,961
CDs	1,172,469	1,600,505	1,469,221	801,135	1,150,776
APK ⁽¹⁾ , settlement of shares	46,337	68,921	83,019	101,265	186,161
Shares	46,337	68,921	83,019	101,265	186,161
Hex Ltd ⁽²⁾	16,062	91,513	186,200	1,548,089	2,341,248
Futures	1,735	63,659	140,500	1,503,002	2,248,499
Options	14,327	27,854	45,700	45,087	92,749
Finnish Options Exchange	5,100	23,800	12,766	5,237	4,477
Futures	2,993	11,164	12,651	4,645	2,168
Options	2,107	12,636	115	592	2,309

(1) See footnote 1 in Table 10.

(2) See footnote 2 in Table 10.

Table 13

Nominal values registered by securities settlement systems
(end of December)

	1993	1994	1995	1996	FIM millions 1997
APK ⁽¹⁾ , settlement of money market operations	131,278	163,509	136,200	234,500	279,800
Government securities	24,328	34,288	40,900	148,500	187,530
CDs	106,950	129,221	95,300	86,000	92,270
APK ⁽¹⁾ , settlement of shares	136,292	181,559	191,700	284,900	389,400
Shares ⁽²⁾	136,292	181,559	191,700	284,900	389,400
Hex Ltd ⁽³⁾	598	3,909	9,313	60,057	77,417
Futures and options ⁽⁴⁾	598	3,909	9,313	60,057	77,417
Finnish Options Exchange	646	1,116	608	279	200
Futures and options ⁽⁴⁾	646	1,116	608	279	200

(1) See footnote 1 in Table 10.

(2) Market value of listed shares.

(3) See footnote 2 in Table 10.

(4) Notional open interest.

Table 14

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

	millions				
	1993	1994	1995	1996	1997
Cheques issued	6.7	5.7	4.0	3.7	2.9
Payments by debit and credit cards	211.5	229.4	246.7	270.0	292.0
Credit transfers	387.9	395.5	418.1	424.3	443.6
<i>of which:</i>					
<i>Paper-based credit transfers</i> ⁽¹⁾	387.9	395.5	418.1	424.3	443.6
<i>Paperless credit transfers</i> ⁽¹⁾	-	-	-	-	-
Direct debits	14.8	17.9	25.6	23.7	26.2
Electronic money	-	-	3.4	3.9	0.1
<i>of which:</i>					
<i>Payments by card-based products</i>	-	<i>n.a.</i>	3.4	3.8	0.1
<i>Payments by network-based products</i>	-	-	-	0.1	0
TOTAL	620.9	648.5	697.8	725.6	764.8
Cross-border payments	1.8	1.6	1.7	3.2	3.5
<i>of which payments to EU countries</i>	0.9	0.7	1.1	2.3	2.6

(1) On interbank level, the percentage of automation degree (i.e. share of electronically submitted to the bank) for customer payments were 61% (1993), 65% (1994), 73% (1995), 75% (1996) and 79% (1997) when measured in volume terms.

Table 15

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

	FIM billions				
	1993	1994	1995	1996	1997
Cheques issued	1,080	1,058	1,071	999	968
Payments by debit and credit cards	50	54	59	69	79
Credit transfers	7,581	7,709	8,268	8,662	8,374
<i>of which:</i>					
<i>Paper-based credit transfers</i> ⁽¹⁾	7,581	7,709	8,268	8,662	8,374
<i>Paperless credit transfers</i> ⁽¹⁾	-	-	-	-	-
Direct debits	28	34	65	66	87
Electronic money	-	<i>n.a.</i>	0.02	0.02	2.60
<i>of which:</i>					
<i>Payments by card-based products</i>	-	<i>n.a.</i>	0.02	0.02	2.60
<i>Payments by network-based products</i>	-	-	-	0	0
TOTAL	8,738.6	8,854.9	9,462.9	9,796.0	9,510.0
Cross-border payments	672.0	289.7	302.7	491.2	608.6
<i>of which payments to EU countries</i>	126.7	163.9	191.7	363.8	476.6

(1) On interbank level, the percentage of the automation degree (i.e. share of electronically submitted to the bank) for customer payments were 49% (1993), 53% (1994), 61% (1995), 52% (1996) and 59% (1997) when measured in value terms.

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	13	14	13	14	15
<i>of which:</i>					
<i>members</i>	10	10	9	9	9
<i>sub-members</i>	3	4	4	5	6
<i>participants</i>	-	-	-	-	-
Memorandum item:					
Total S.W.I.F.T. world-wide	4,256	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,244	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,887	2,023	2,259	2,404	2,590
<i>participants</i>	125	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	3,309,647	3,951,479	4,646,108	5,030,370	5,751,091
<i>of which:</i>					
<i>category I</i>	1,666,967	1,883,044	2,119,344	2,146,159	2,282,875
<i>category II</i>	850,441	1,014,105	1,157,502	1,065,054	1,116,193
<i>sent/received to/from domestic users</i>	430,137	522,748	617,520	421,391	390,903
Total messages received	2,396,183	2,805,753	3,281,266	3,375,655	3,792,939
<i>of which:</i>					
<i>category I</i>	862,653	1,054,813	1,167,447	1,180,787	1,287,983
<i>category II</i>	476,648	608,804	737,603	686,231	733,604
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions

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

Sweden

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	8,719	8,781	8,827	8,841	8,846
Gross domestic product (SEK billions)	1,446.2	1,531.1	1,645.0	1,696.7	1,745.9
Exchange rate vis-à-vis ECU ⁽¹⁾	9.1215	9.1631	9.3319	8.5147	8.6512

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	SEK billions				
	1993	1994	1995	1996	1997
Notes and coins	66.8	68.6	68.5	72.2	74.4
Transferable deposits ⁽¹⁾	586.4	617.3	638.0	703.2	698.2
Narrow money supply (M1)	-	-	-	-	-
Transferable deposits in foreign currencies	26.1	21.6	17.2	27.0	35.1
Outstanding value on electronic money schemes	-	-	-	-	-
<i>of which:</i>					
<i>on card-based products</i>	-	-	-	-	-
<i>on network-based products</i>	-	-	-	-	-

(1) Local currency.

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	SEK billions				
	1993	1994	1995	1996	1997
Required reserves held at central bank	4.3	5.0	-	-	-
Free reserves held at central bank	-8.3	7.2	-0.8	1.5	2.0
Transferable deposits at other institutions	31.0	62.3	48.8	70.6	95.9

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

	SEK millions				
	1993	1994	1995	1996	1997
Total banknotes issued	72,413	72,992	73,064	77,134	78,986
<i>of which:</i>					
SEK 1,000	39,803	39,569	37,841	38,636	39,226
SEK 500	18,384	19,903	22,316	25,565	27,157
SEK 100	12,000	11,298	10,649	10,332	9,906
SEK 50	261	205	185	913	962
SEK 20	1,525	1,608	1,679	1,309	1,366
SEK 10	345	315	300	286	277
SEK 5	95	94	94	93	92
Total coins issued	3,308	3,450	3,596	3,656	3,809
Notes and coins held by credit institutions	8,919	7,848	8,357	8,774	8,681
Notes and coins in circulation outside credit institutions	66,802	68,594	68,303	72,016	74,114

Table 5**Institutional framework***(end of 1997)*

Categories	Number of institutions	Number of branch offices	Number of accounts (millions)	Value of accounts (SEK billions)
Central bank	1	10	n.a.	n.a.
Commercial banks	20	3,294	n.a.	864.2
Savings banks	87	303	n.a.	56.3
TOTAL	108	3,607	n.a.	920.5
Branches of foreign banks	17	17	n.a.	7.7
<i>of which EC-based</i>	14	14	n.a.	7.3

Table 6**Cash dispensers, ATMs and EFTPOS terminals***(end of year)*

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	2	2	2	2	2
Number of machines	2,226	2,281	2,359	2,379	2,370
Volume of transactions (millions)	247	270	281	297	312
Value of transactions (SEK billions)	195	218	226	239	249
EFTPOS terminals ⁽¹⁾					
Number of networks	2	2	2	2	2
Number of points of sale	26,630	25,536	54,400	61,400	68,800
Volume of transactions (millions)	63	77	92	111	141
Value of transactions (SEK billions)	33	48	53	69	84
Electronic money loading machines					
Number of machines	-	-	-	-	-
Volume of transactions (thousands)	-	-	-	-	-
Value of transactions (millions)	-	-	-	-	-
Electronic money purchase terminals					
Number of machines	-	-	-	-	-
Volume of transactions (thousands)	-	-	-	-	-
Value of transactions (millions)	-	-	-	-	-

(1) Terminals administrated by the two data processing companies BABS and CEKAB.

Table 7**Number of payment cards in circulation ⁽¹⁾***(end of year)*

	1993	1994	1995	1996	1997
					thousands
Cards with a cash function ⁽²⁾	5,162	6,037	6,171	6,317	6,849
Cards with a debit/credit function ⁽³⁾	11,412	12,076	4,742	5,622	6,111
<i>of which:</i>					
<i>cards with a debit function</i>	9,937	10,379	3,525	3,731	4,188
<i>cards with a credit function</i>	1,475	1,697	1,217	1,931	1,923
Cards with a cheque guarantee function	-	-	-	-	-
Retailer cards	7,961	9,121	n.a.	n.a.	n.a.
Electronic money cards	-	-	-	-	-

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

(2) There has been a new source of statistics since 1992.

(3) As from 1995, cards issued by oil companies and retail trade companies are not included.

Table 8

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

	thousands				
	1992	1993	1994	1995	1996
RIX system	79	78	84	119	310

Table 9

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

	SEK billions				
	1993	1994	1995	1996	1997
RIX system	78	84	119	310	326

Table 10

Participants in securities settlement systems
(end of 1997)

	Settling securities ⁽¹⁾	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
VPC	57	44	13
Banks	18	17	11
Stockbrokers	21	21	-
Insurance companies	7	-	-
Foreign central banks	-	-	-
Cedel / Euroclear	-	-	-
Others ^{(2) (3)}	11	6	2

(1) Defined as account operators in the system.

(2) Sveriges Riksbank, the National Debt Office and the National Pension Fund (three funds), mortgage institutions (two), the OM Group and its subsidiary company VPA.

(3) Sveriges Riksbank and the National Debt Office.

Table 11

Transfer instructions handled by securities settlement systems:
volume of transactions

	thousands				
	1993	1994	1995	1996	1997
VPC		3,000	2,912	3,678	5,313
Government securities and bonds ⁽¹⁾	-	500	498	601	594
Shares ⁽²⁾	n.a.	2,500	2,414	3,077	4,719

(1) Includes Sveriges Riksbank certificates.

(2) Includes private bonds.

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions

	SEK billions				
	1993	1994	1995	1996	1997
VPC		47,055	41,547	67,937	82,618
Government securities and bonds ⁽¹⁾	-	46,000	40,428	66,432	80,272
Shares ⁽²⁾	n.a.	1,055	1,119	1,505	2,346

(1) Includes Sveriges Riksbank certificates.

(2) Includes private bonds.

Table 13

Nominal values registered by securities settlement systems
(end of year)

	SEK billions				
	1993	1994	1995	1996	1997
VPC		2,668	2,987	3,497	3,998
Government securities ⁽¹⁾	-	921	1,058	1,029	1,028
Bonds ⁽²⁾	-	702	679	701	726
Shares ⁽³⁾	n.a.	1,025	1,192	1,714	2,156
CSDs	-	20	58	53	88

(1) Includes Sveriges Riksbank certificates.

(2) Excludes Government bonds.

(3) Market values.

Table 14

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

	millions				
	1993	1994	1995	1996	1997
Cheques issued	51	n.a.	n.a.	n.a.	n.a.
Payments by debit and credit cards	68	97	111	120	173
Paper-based credit transfers	161	170	189	196	208
Paperless credit transfers	428	435	431	441	452
Direct debits	40	45	50	54	65
Electronic money	-	-	-	-	-
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	-	-
<i>Payments by network-based products</i>	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	748	747	781	811	898

Table 15

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

	SEK billions				
	1993	1994	1995	1996	1997
Cheques issued	487	n.a.	n.a.	n.a.	n.a.
Payments by debit and credit cards	53	79	91	103	127
Paper-based credit transfers ⁽¹⁾	2,230	1,933	1,946	1,656	1,973
Paperless credit transfers ⁽¹⁾	3,587	4,282	4,405	5,076	5,344
Direct debits	205	183	194	202	193
Electronic money	-	-	-	-	-
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	-	-
<i>Payments by network-based products</i>	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	6,562	6,477	6,636	7,037	7,637

(1) From customer to bank.

Table 16

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

	1993	1994	1995	1996	1997
S.W.I.F.T. users	19	17	20	22	21
<i>of which:</i>					
<i>members</i>	10	8	8	8	7
<i>sub-members</i>	9	9	11	12	12
<i>participants</i>	-	-	1	2	2
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

Table 17

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

	1993	1994	1995	1996	1997
Total messages sent	7,447,346	8,701,454	10,019,610	11,256,498	12,512,774
<i>of which:</i>					
<i>category I</i>	2,915,188	3,335,280	3,816,919	4,349,901	4,890,247
<i>category II</i>	1,863,230	2,029,226	2,223,462	2,400,631	2,576,992
<i>sent/received to/from domestic users</i>	984,831	1,213,723	1,455,832	1,722,933	2,049,871
Total messages received	6,040,394	7,021,354	7,971,173	8,992,702	10,296,368
<i>of which:</i>					
<i>category I</i>	2,136,086	2,427,632	2,833,733	3,167,954	3,649,313
<i>category II</i>	1,566,639	1,925,165	2,104,694	2,357,508	2,635,197
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

Definitions:

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

United Kingdom

Table 1

Basic statistical data

	1993	1994	1995	1996	1997
Population ⁽¹⁾ (thousands)	58,191	58,395	58,613	58,801	58,994
Gross domestic product (GBP billions)	628.6	665.1	697.5	739.3	785.8
Exchange rate vis-à-vis ECU ⁽¹⁾	0.7799	0.7756	0.8288	0.8138	0.6923

(1) Average for the year.

Table 2

Settlement media used by non-banks

(end of year)

	GBP billions				
	1993	1994	1995	1996	1997
Notes and coins	17.9	18.8	19.9	20.8	22.5
Narrow money deposits	377.6	391.7	417.1	439.5	462.4
Narrow money supply (M2)	395.5	410.5	437.0	460.3	484.9
Outstanding value on electronic money schemes ⁽¹⁾		-	-	0	0
<i>of which:</i>					
<i>on card-based products</i>	-	-	-	0 ⁽²⁾	0 ⁽³⁾
<i>on network-based products</i>	-	-	-	n.a.	n.a.

(1) There is no fully operational electronic money scheme currently in place. Figures are taken from trials being carried out in various parts of the country.

(2) Actual figure is GBP 99,900.

(3) Actual figure is GBP 194,687

Table 3

Settlement media used by deposit-taking institutions

(end of year)

	GBP billions				
	1993	1994	1995	1996	1997
Cash ratio deposit ⁽¹⁾	1.42	1.50	1.69	2.40	2.56
Free reserves held at central bank	0.18	0.10	0.11	0.54	0.23
Transferable deposits at other credit institutions ⁽²⁾	49.6	55.3	50.1	53.5	69.3

(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% (as at 31 December 1993) of their eligible liabilities (0.25% for institutions for which Northern Ireland is the main place of business in the United Kingdom).

(2) Includes some time deposits.

Table 4
Banknotes and coins

(total value, end of year)

	GBP millions				
	1993	1994	1995	1996	1997
Total banknotes issued ⁽¹⁾	17,315	18,513	19,605	20,904	22,404
<i>of which:</i>					
<i>GBP 50</i>	2,996	2,989	3,205	3,368	3,709
<i>GBP 20</i>	7,337	8,362	9,098	10,021	11,138
<i>GBP 10</i>	5,714	5,945	6,111	6,340	6,426
<i>GBP 5</i>	1,211	1,160	1,135	1,119	1,076
<i>GBP 1</i>	57	57	56	56	55
Notes held by credit institutions ^{(2) (3) (4)}	3,662	4,328	4,403	5,116	5,170
Total coins issued ⁽⁵⁾	n.a.	1,958	1,992	2,094	2,244
<i>of which:</i>					
<i>£1</i>	n.a.	1,012	1,033	1,095	1,142
<i>50p</i>	n.a.	240	223	221	291
<i>20p</i>	n.a.	297	309	326	337
<i>10p</i>	n.a.	134	136	142	146
<i>5p</i>	n.a.	133	140	150	161
<i>2p</i>	n.a.	78	83	88	92
<i>1p</i>	n.a.	64	68	72	75
Notes and coins in circulation outside credit institutions ^{(3) (4)}	17,897	18,752	19,896	20,843	22,472

- (1) Bank of England banknotes only.
 (2) Not seasonally adjusted.
 (3) Average for the month of December.
 (4) Figures include coins.
 (5) Estimated as at 31 December 1997.

Table 5
Institutional framework

(end of 1997)

Categories	Number of institutions	Number of branches	Number of accounts (millions)	Value of accounts (GBP billions)
Central bank	1	1 ⁽¹⁾	107.5 ⁽²⁾	364.4 ⁽²⁾
Commercial banks	480	13,676 ⁽³⁾		
Building societies	71	2,537	20.2	95.5 ⁽⁴⁾
Post office	1	19,020	16.0 ^{(4) (5)}	1.4 ⁽⁵⁾
TOTAL	553	35,234	143.7	461.3
Branches of foreign banks	265	-	-	-
<i>of which EC-based</i>	115	-	-	-

- (1) Only operational function concerned note issue.
 (2) The Central Bank and Commercial Bank figure is amalgamated.
 (3) Estimated figure.
 (4) Private sector ordinary share and deposit accounts with UK building societies and shares and deposits below £50,000 from corporate bodies.
 Retail issues of subscribed capital, e.g. Perpetual Interest Bearing Shares, are excluded.
 (5) National Savings Ordinary Accounts only. NSB facilities are available at post offices on an agency basis.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1993	1994	1995	1996	1997
Cash dispensers and ATMs					
Number of networks	3	3	3	3	3
Number of machines (thousands)	19.1	20.0	20.9	22.1	23.2
Volume of transactions (millions) ⁽¹⁾	1,242	1,335	1,471	1,599	1,745
Value of transactions (GBP billions) ⁽¹⁾	60	65	72	80	90
EFTPOS terminals					
Number of networks ⁽²⁾	3	3	3	3	3
Number of machines ^{(1) (3)}	270,000	350,000	505,000	550,000	530,000
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.
Electronic money loading machines ⁽⁴⁾					
Number of machines	-	-	-	1,340	1,295
Volume of transactions (thousands)	-	-	-	57	98
Value of transactions (millions)	-	-	-	1	2
Electronic money purchase terminals ⁽⁴⁾					
Number of machines	-	-	-	1,922	3,537
Volume of transactions (thousands)	-	-	-	n.a.	n.a.
Value of transactions (millions)	-	-	-	1	1

(1) Estimated figure.

(2) SWITCH, VISA and MasterCard.

(3) SWITCH, VISA and MasterCard. The number of points of sale is not available. (Several machines can be installed at one point of sale.)

(4) There is no fully operational electronic money scheme currently in place. Figures are taken from trials being carried out in various parts of the country.

Table 7Number of payment cards in circulation ⁽¹⁾

(end of year)

	1993	1994	1995	1996	1997
					millions
Cards with a cash function	75.0	77.3	83.7	89.0	96.8
Cards with a debit/credit function	51.7	54.5	59.2	66.6	75.0
<i>of which:</i>					
<i>cards with a debit function</i>	24.1	26.0	28.4	32.5	36.6
<i>cards with a credit function</i> ⁽²⁾	27.6	28.5	30.8	34.1	38.4
Cards with a cheque guarantee function ⁽³⁾	44.0	45.5	48.0	50.7	53.3
Retailer cards ^{(4) (5)}	8.5	10.3	13.0	15.4	17.6
Electronic money cards ⁽⁶⁾	-	-	-	0.03	0.11

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

(2) Bank VISA, MasterCard and travel and entertainment (charge cards) cards only (excludes cards issued by some building societies).

(3) Includes eurocheque cards.

(4) This figure does not include the number of cards issued by smaller retailers.

(5) Estimated figure.

(6) There is no fully operational electronic money scheme currently in place. Figures are taken from trials being carried out in various parts of the country.

Table 8

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

	1993	1994	1995	1996	1997	millions
Town Clearing ⁽¹⁾⁽²⁾	0.1	<0.1	0	-	-	-
CHAPS	11.0	11.7	12.6	14.4	16.5	
Cheque and Credit Clearings	2,496	2,451	2,377	2,347	2,296	
Cheques ⁽¹⁾⁽³⁾	2,323	2,278	2,206	2,171	2,115	
Paper-based credit transfers ⁽¹⁾⁽³⁾	173	173	171	176	181	
BACS	1,903	2,058	2,268	2,476	2,682	
Credit transfers ⁽¹⁾	858	910	969	1,033	1,098	
Direct debits	1,045	1,148	1,299	1,443	1,584	
TOTAL	4,410.1	4,520.7	4,657.6	4,837.4	4,994.5	

- (1) Excludes inter-branch items.
(2) Town Clearing ceased operation on 24 February 1995.
(3) Includes Northern Ireland and Scotland (includes estimates).

Table 9

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

	1993	1994	1995	1996	1997	GBP billions
Town Clearing ⁽¹⁾⁽²⁾	1,069	681	59	-	-	-
CHAPS	23,545	25,053	26,719	28,881	36,032	
Cheque and Credit Clearings	1,300	1,311	1,333	1,400	1,453	
Cheques ⁽¹⁾⁽³⁾	1,194	1,210	1,234	1,298	1,351	
Paper-based credit transfers ⁽¹⁾⁽³⁾	106	101	99	102	102	
BACS	836	941	1,054	1,251	1,432	
Credit transfers ⁽¹⁾	574	657	742	898	1,025	
Direct debits	262	284	312	353	407	
TOTAL	26,750	27,986	29,165	31,532	38,917	

- (1) Inter-branch items are excluded.
(2) Town Clearing ceased operation on 24 February 1995.
(3) Includes Northern Ireland and Scotland (includes estimates).

Table 10**Participants in securities settlement systems***(end of 1997)*

	Settling securities	Holding securities accounts on behalf of customers	Settling cash directly in central bank accounts
CGO ⁽¹⁾	232	-	-
Participants	232	n.a.	-
CMO	88	-	-
Banks	80	-	-
Stockbrokers	-	-	-
Securities houses	2	-	-
Discount houses	4	-	-
Stock exchange money-brokers	-	-	-
Others	2	-	-
ESO ⁽²⁾	-	-	-
Banks	-	-	-
Others	-	-	-
TALISMAN ⁽³⁾	n.a.	n.a.	n.a.
Participants	-	-	-
CREST ⁽³⁾⁽⁴⁾	3,432	3,375	n.a.
Market Participants	1,409	1,409	-
Payment Banks	18	-	-
Registrars	39	-	-
Private Clients (individuals)	1,966	1,966	-
LCH ⁽¹⁾	126	126	-
Participants	126	126	-

(1) It is not possible to distinguish different classes of participants.

(2) ESO was closed 31 December 1997.

(3) CREST commenced operations on 15 July 1996. Following the orderly transfer of securities from TALISMAN to CREST, TALISMAN closed on 7 April 1997.

(4) Figures are for UK and Ireland. Irish transactions account for 4%.

Table 11

Transfer instructions handled by securities settlement systems:
volume of transactions ⁽¹⁾

	1993	1994	1995	1996	1997	thousands
CGO ⁽²⁾	736.8	768.4	747.5	960.1	949.8	
Government securities	-	-	-	-	-	-
Non-British Government Securities	-	-	-	-	-	-
CMO ⁽²⁾	267.6	285.3	269.0	268.0	263.1	
Government securities))))))
Bills of exchange))))))
Bank CDs	)267.6	)285.3	)269	)268	)263.1)
Building society CDs))))))
Commercial paper))))))
Stock exchange STCs))))))
ESO ⁽²⁾⁽³⁾		9.1	14.2	18.5	22.6	
Government securities	-)))))
Bonds	-	)9.1	)14.2	)18.5	)22.6)
CDs	-)))))
TALISMAN ⁽²⁾⁽⁴⁾	10,344	9,386	9,817	10,962	n.a. ⁽⁸⁾	
Shares ⁽⁵⁾	10,344	9,386	9,817	10,962	-	
CREST ⁽⁴⁾⁽⁶⁾	-	-	-	1,598	29,005 ⁽⁸⁾	
Shares ⁽⁵⁾	-	-	-	1,598	29,005	
LCH ⁽⁷⁾	154,645	219,138	198,561	233,811	304,017	
Futures	129,746	186,208	168,610	198,758	264,078	
Options	24,899	32,930	29,951	35,053	39,939	

- (1) Figures altered from previous edition due to revised method of calculation.
- (2) Volumes include one side of each transaction.
- (3) ESO was inaugurated on 31 August 1993 and was closed on 31 December 1997.
- (4) CREST commenced operations on 15 July 1996. Following the transfer of securities from TALISMAN to CREST, TALISMAN closed on 7 April 1997.
- (5) Figures represent number of bargains settled.
- (6) Figures are for UK and Ireland. Irish transactions account for 4%.
- (7) Number of contracts.
- (8) TALISMAN and CREST figures are combined.

Table 12

Transfer instructions handled by securities settlement systems:
value of transactions ⁽¹⁾

	1993	1994	1995	1996	1997
					GBP billions
CGO ⁽²⁾	11,725	15,266	16,001	24,288	28,283
Government securities	-	-	-	-	-
Non-British Government Securities	-	-	-	-	-
CMO ⁽²⁾	2,344	2,547	3,305	3,483	3,842
Government securities	)2,344	)2,547	)3,305	)3,483	)3,842
Bills of exchange)))))
Bank CDs)))))
Building society CDs)))))
Commercial paper)))))
Stock exchange STCs)))))
ESO ^{(2) (3) (4)}		59	84	90	141
Government securities	-	)59	)84	)90	)141
Bonds	-))))
CDs	-))))
TALISMAN ^{(2) (5)}	564	606	646	741	n.a. ⁽⁸⁾
Shares ⁽⁶⁾	564	606	646	741	-
CREST ^{(5) (7)}	-	-	-	109	3,996 ⁽⁸⁾
Shares	-	-	-	109	3,996

(1) Figures altered from previous edition due to revised method of calculation.

(2) Turnover includes one side of each transaction.

(3) ESO was not inaugurated until 31 August 1993 and was closed on 31 December 1997.

(4) Nominal value of securities traded. (Trading is in ECU - figures quoted are GBP.)

(5) CREST commenced operations on 15 July 1996. Following the transfer of securities from TALISMAN to CREST, TALISMAN closed on 7 April 1997.

(6) Figures represent value of bargains settled.

(7) Figures are for UK and Ireland. Irish transactions account for 4%.

(8) TALISMAN and CREST figures are combined.

Table 13**Nominal values registered by securities settlement systems***(end of year)*

					GBP billions
	1993	1994	1995	1996	1997
CGO	)204.4	)227.9	)210.9	)243.3	261.9
Government securities	)	)	)	)	260.5
Non-British Government Securities	)	)	)	)	1.4
CMO	79.6	86.4	106.0	118.2	121.6
Government securities	3.1	5.2	16.7	3.0	1.4
Bills of exchange	21.5	17.6	17.9	20.5	20.8
Bank CDs	44.6	52.5	57.9	82.0	95.7
Building society CDs	5.9	7.0	6.2	7.5	3.7
Commercial paper	neg.	neg.	neg.	neg.	neg.
Stock exchange STCs	4.5	4.1	7.3	5.2	neg.
ESO ^{(1) (2)}	3.8	4.3	5.3	5.2	-
Government securities))))	-
Bonds))))	-
CDs))))	-
TALISMAN ^{(3) (4)}	856.8	811.8	942.7	1,055.3	n.a.
Equities and unlisted securities ⁽⁵⁾	815.4	779.5	906.9	1,017.0	-
Fixed interest	41.4	32.3	35.8	38.3	-
CREST ^{(4) (6)}	-	-	-	348.3	1,066.0

(1) Trading is in ECU; figures are quoted in GBP.

(2) ESO was not inaugurated until 31 August 1993 and was closed on 31 December 1997.

(3) Figures are market values of UK companies; other securities traded at the Stock Exchange are not eligible for settlement in TALISMAN.

(4) CREST commenced operations on 15 July 1996. Following the transfer of securities from TALISMAN to CREST, TALISMAN closed on 7 April 1997.

(5) From 1995, includes Alternative Investment Market (AIM).

(6) Figures are for UK and Ireland. Irish transactions account for 4%.

Table 14

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

	1993	1994	1995	1996	millions 1997
Cheques issued ^{(1) (2)}	2,886	2,802	2,699	2,643	2,582
<i>large-value (Town) ⁽³⁾</i>	<0.1	<0.1	0	0	n.a.
<i>others</i>	2,886	2,802	2,699	2,643	2,582
Payments by card	1,407	1,623	1,907	2,305	2,631
<i>debit</i>	659	808	1,004	1,270	1,503
<i>credit ⁽⁴⁾</i>	748	815	903	1,035	1,128
Paper-based credit transfers ^{(2) (5)}	432	415	405	419	419
Paperless credit transfers	936	987	1,045	1,170	1,241
<i>large-value (CHAPS)</i>	11	12	13	14	17
<i>others ⁽²⁾</i>	925	975	1,032	1,156	1,224
Direct debits	1,046	1,148	1,299	1,443	1,584
Electronic money ⁽⁶⁾	-	-	-	n.a.	n.a.
<i>of which:</i>					
<i>Payments by card-based products</i>	-	-	-	n.a.	n.a.
<i>Payments by network-based products</i>	-	-	-	-	-
TOTAL ⁽⁷⁾	6,707	6,975	7,355	7,980	8,457

(1) Excludes cheques processed at branch level, but includes cheques used by customers to obtain cash from a bank other than their own.

(2) Includes inter-branch items (values are estimates).

(3) Town clearing ceased operation on 24 February 1995.

(4) VISA and MasterCard only. Excludes transactions by holders of charge cards (travel and entertainment cards) and retailer cards.

(5) Excludes items processed at branch level.

(6) There is no fully operational electronic money scheme currently in place.

(7) Excludes postal orders and government payments in cash from post offices against state benefit vouchers.

Table 15

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

	GBP billions				
	1993	1994	1995	1996	1997
Cheques issued ^{(1) (2)}	2,587	2,177	1,577.2	1,590.8	1,652.0
<i>large-value (Town)</i> ⁽³⁾	1,095	681	59.3	<i>n.a.</i>	<i>n.a.</i>
<i>others</i>	1,492	1,496	1,517.9	1,590.8	1,652.0
Payments by card	51.2	59.9	70.8	88.1	103.2
<i>debit</i>	17.9	22.4	28.5	37.1	45.1
<i>credit</i> ⁽⁴⁾	33.3	37.5	42.3	51.0	58.1
Paper-based credit transfers ^{(2) (5)}	457.2	397.2	371.2	401.9	394.9
Paperless credit transfers	24,143	25,733	27,486	29,832	37,124
<i>large-value (CHAPS)</i>	23,545	25,052	26,719	28,881	36,032
<i>others</i> ⁽²⁾	598	681	767	951	1,092
Direct debits	262	284	312	353	407
Electronic money ⁽⁶⁾	-	-	-	0.001 ⁽⁸⁾	0.001 ⁽⁹⁾
of which:					
<i>Payments by card-based products</i> ⁽⁶⁾	-	-	-	0.001 ⁽⁸⁾	0.001 ⁽⁹⁾
<i>Payments by network-based products</i>	-	-	-	0	0
TOTAL ⁽⁷⁾	27,500.4	28,651.1	29,817.2	32,265.8	39,681.1

(1) Excludes cheques processed at branch level, but includes cheques used by customers to obtain cash from a bank other than their own.

(2) Includes inter-branch items (values are estimates).

(3) Town clearing ceased operation on 24 February 1995.

(4) VISA and MasterCard only. Excludes transactions by holders of charge cards (travel and entertainment cards) and retailer cards.

(5) Excludes items processed at branch level.

(6) There is no fully operational electronic money scheme currently in place. Figures are taken from trials being carried out in various parts of the country.

(7) Excludes postal orders and government payments in cash from post offices against state benefit vouchers.

(8) Actual figure is GBP 1,291,985.

(9) Actual figure is GBP 1,435,362.

Table 16Participation in S.W.I.F.T. by domestic institutions ⁽¹⁾

	1993	1994	1995	1996	1997
S.W.I.F.T. users	309	344	366	382	408
<i>of which:</i>					
<i>members</i>	57	59	62	66	63
<i>sub-members</i>	214	228	235	236	241
<i>participants</i>	38	57	69	80	104
Memorandum item:					
Total S.W.I.F.T. world-wide	4,004	4,623	5,229	5,632	6,165
<i>of which:</i>					
<i>members</i>	2,103	2,412	2,259	2,874	2,969
<i>sub-members</i>	1,802	2,023	2,259	2,404	2,590
<i>participants</i>	99	188	277	354	606

(1) The UK and the Isle of Man.

Table 17S.W.I.F.T. message flows to/from domestic users ⁽¹⁾

	1993	1994	1995	1996	1997
Total messages sent	54,796,966	60,967,184	71,035,477	82,578,192	100,441,417
<i>of which:</i>					
<i>category I</i>	9,537,290	10,352,681	11,181,501	12,312,467	13,797,623
<i>category II</i>	18,110,333	19,379,515	21,654,710	23,419,297	26,714,116
<i>sent/received to/from domestic</i>					
<i>users</i>	12,838,570	14,154,000	16,386,855	19,335,978	23,902,129
Total messages received	48,734,436	55,179,903	66,015,464	79,741,899	101,914,835
<i>of which:</i>					
<i>category I</i>	11,316,746	12,540,347	13,987,532	15,500,253	17,009,249
<i>category II</i>	8,284,102	8,350,297	8,906,827	9,429,168	11,142,323
Memorandum item:					
Global S.W.I.F.T. traffic	457,218,200	518,097,873	582,192,512	687,785,294	812,117,556

(1) The UK and the Isle of Man.

Definitions

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

Comparative tables

Table 1

Notes and coins in circulation outside credit institutions

(end of year)

	Total (ECU millions) ⁽¹⁾		Value per inhabitant (ECU)		As a percentage of GDP		As a percentage of narrow money ⁽²⁾	
	1996	1997	1996	1997	1996	1997	1996	1997
Belgium	11,089	10,887	1,092	1,069	5.25%	5.10%	27.5%	26.5%
Denmark	4,199	4,436	798	840	3.12%	3.17%	n.a.	n.a.
Germany	129,246	125,739	1,578	1,532	6.97%	6.78%	26.9%	26.3%
Greece	6,354	7,056	607	672	6.56%	6.67%	45.2%	45.3%
Spain	49,400	50,504	1,258	1,284	10.72%	10.70%	25.0%	23.6%
France	39,704	39,425	680	673	3.30%	3.21%	14.2%	13.5%
Ireland	2,480	3,023	684	823	4.45%	4.54%	33.4%	30.3%
Italy	51,105	55,685	890	969	5.34%	5.51%	16.1%	16.1%
Luxembourg	422	451	1,017	1,072	3.16%	3.25%	14.9%	15.9%
Netherlands	17,882	17,504	1,151	1,121	5.73%	5.50%	19.7%	18.5%
Austria	10,920	10,576	1,355	1,310	6.06%	5.81%	34.0%	32.3%
Portugal	4,430	3,908	446	393	5.21%	4.40%	18.1%	14.3%
Finland	2,333	2,466	455	480	2.37%	2.35%	6.7%	6.7%
Sweden	8,479	8,600	959	972	4.26%	4.26%	n.a.	n.a.
United Kingdom	25,559	33,658 ⁽³⁾	435	571 ⁽³⁾	2.81%	2.86%	4.5%	4.6%
EU	363,604	373,920	974	972	5.37%	5.2%	31.6%	29.2%

(1) Calculated using average yearly ECU rate.

(2) M1, except for the United Kingdom: M2; EU: percentage of money supply without Denmark, Sweden and United Kingdom.

(3) End of year exchange rate vis-à-vis ECU used (0.6685)

Table 2**Points of entry into the payment system***(end of year)*

	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)	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Belgium	14	13	1.4	1.4	748	730	168	156	-	-	918	888	1.15	1.23
Denmark	38	37	0.2	0.2	457	449	235	220	-	-	692	670	1.72	1.63
Germany	43	42	2.1	2.0	811	725	-	-	-	-	813	727	0.98	0.98
Greece	6	5	9.1	9.1	183	191	12	12	12	12	216	225	0.13	0.12
Spain	8	8	1.3	1.3	935	958	n.a.	n.a.	-	-	937	960	1.80	1.79
France	9	9	3.6	3.6	436	435	291	289	70	69	800	796	1.11	1.08
Ireland	18	15	0.3	0.3	216	253	531	522	55	50	803	825	1.53	1.82
Italy	16	16	1.7	1.7	425	439	254	254	-	-	681	695	0.46	0.48
Luxembourg	534	520	2.4	2.4	972	950	-	-	n.a.	n.a.	972	950	3.84	3.79
Netherlands	8	8	0.7	0.6	284	304	147	149	n.a.	n.a.	431	453	1.27	1.39
Austria	127	123	0.9	0.9	582	581	288	289	-	-	872	871	0.79	0.72
Portugal	24	24	1.1	1.1	428	453	108	111	n.a.	n.a.	538	565	1.89	1.99
Finland	68	68	0.8	0.8	341	321	138	97	-	-	479	418	2.34	2.31
Sweden	12	12	1.2	1.1	286	407	133	122	-	-	287	408	n.a.	n.a.
United Kingdom	10	9	0.1	0.0	205	232	328	322	79	43	611	597	2.30	2.44
EU ⁽³⁾	22	22	1.8	1.8	525	518	248	244	24	18	699	684	1.24	1.27

(1) Per 1,000,000 inhabitants.

(2) If the post offices offer payment services.

In Germany: Postbank AG as a fully-fledged credit institution appears with its branches under "Number of bank branches", including post office branches which are entrusted with the semi-cashless payment systems on behalf of Postbank AG.

(3) Average without countries where data are not available.

Table 3**Cash dispensers and ATMs***(end of year)*

	Number of machines per 1,000,000 inhabitants (end of year)		Number of transactions per capita		Average value per transaction (ECU)		Increase in the number of machines		Increase in the number of transactions		Increase in the value of transactions	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Belgium	414	492	15.1	15.7	106	104	15%	19%	6%	4%	8%	6%
Denmark	239	253	n.a.	n.a.	n.a.	n.a.	16%	6%	n.a.	n.a.	n.a.	n.a.
Germany	459	504	15.3	n.a.	146	n.a.	5%	10%	14%	n.a.	12%	n.a.
Greece	185	209	5.6	6.0	133	162	43%	13%	43.9%	6.7%	41%	32%
Spain ⁽¹⁾	775	863	14.8	15.4	85	82	14%	12%	3%	4%	3%	4%
France	420	462	18.2	19.9	63	62	7%	10%	16%	10%	16%	10%
Ireland	290	286	20.6	23.7	76	65	14%	0%	17%	16%	27%	-6%
Italy	422	444	6.4	7.2	160	163	12%	5%	11%	12%	8%	13%
Luxembourg	537	613	9.9	9.7	118	113	19%	16%	8%	0%	10%	-1%
Netherlands	373	410	29.4	33.4	83	78	6%	10%	7%	14%	9%	10%
Austria	479	533	9.2	9.7	142	135	14%	11%	9%	6%	9%	4%
Portugal	541	631	18.2	21.2	61	60	46%	17%	32%	16%	48%	18%
Finland ⁽²⁾	448	445	41.5	43.3	66	67	-5%	-1%	6%	5%	8%	7%
Sweden	269	268	33.6	35.3	95	92	1%	0%	6%	5%	6%	4%
United Kingdom	376	393	27.2	29.6	61	74	6%	5%	9%	9%	11%	13%
EU ⁽³⁾	448	488	17.3	19.5	105	97	9%	9%	9%	12%	1%	-8%

(1) In "Average value per transaction": only cash withdrawals.

(2) Only cash-dispensing ATMs.

(3) Average without countries where data are not available.

Table 4**EFTPOS***(end of year)*

	Number of POS per 1,000,000 inhabitants (end of the year)		Number of transactions per capita		Average value per transaction (ECU)		Increase in the number of POS		Increase in the number of transactions		Increase in the value of transactions	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Belgium	5,973	6,284	23.9	27.2	59	58	9%	5%	15%	14%	17%	14%
Denmark	7,966	11,923	52.2	57.7	47	46	60%	50%	14%	11%	16%	11%
Germany ⁽¹⁾	1,404	1,984	2.6	2.8	80	65	64%	42%	43%	5%	60%	-11%
Greece	1,796	2,831	0.8	1.3	75	74	66%	58%	2%	64%	20%	64%
Spain	14,650	16,691	7.5	8.8	50	48	20%	14%	-5%	18%	13%	17%
France	9,353	9,555	35.7	39.3	48	46	1%	3%	12%	10%	11%	7%
Ireland	1,213	1,402	n.a.	n.a.	n.a.	n.a.	-	17%	-	n.a.	-	n.a.
Italy	3,741	4,896	2.9	4.4	93	94	40%	31%	39%	50%	31%	50%
Luxembourg	11,218	11,071	38.5	45.4	69	66	40%	0%	7%	19%	11%	18%
Netherlands	6,184	7,715	23.9	31.1	44	43	31%	25%	45%	31%	46%	31%
Austria	632	1,652	1.9	3.0	55	54	51%	162%	36%	59%	56%	59%
Portugal	4,990	6,022	17.6	22.1	24	24	36%	18%	41%	26%	12%	25%
Finland	9,952	10,506	46.2	50.9	43	45	4%	6%	9%	11%	15%	15%
Sweden	6,945	7,778	12.6	15.9	73	69	13%	12%	21%	27%	30%	22%
United Kingdom	9,354	8,984	n.a.	n.a.	n.a.	n.a.	9%	-4%	n.a.	n.a.	n.a.	n.a.
EU ⁽²⁾	6,417	7,146	13.6	15.7	66	62	15%	11%	15%	15%	6%	-7%

(1) In 1997 only electronic cash procedures.

(2) Average without countries where data are not available.

Table 4A**E-Money loading machines and purchase terminals and cards***(end of year)*

	Electronic money cards (thousands)		Number of loading machines		Average value per (re)loading (ECU)		Number of purchase terminals		Average value per purchase (ECU)	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Belgium	761	3,430	1,425	6,438	33.7	32.1	5,504	21,263	4.1	3.9
Denmark	390	n.a.	2	3	135.9	n.a.	2,413	5,230	1.3	1.3
Germany ⁽¹⁾	22,000	35,000	75	20,000	67.4	n.a.	1,000	50,000	13.6	10.3
Greece ⁽²⁾	-	-	-	-	-	-	-	-	-	-
Spain	1,344	3,502	4,123	10,942	15.2 ⁽³⁾	16 ⁽³⁾	48,524	77,092	5.8	3.1
France	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Ireland	-	-	-	-	-	-	-	-	-	-
Italy	n.a.	62	n.a.	945	n.a.	n.a.	n.a.	4,406	n.a.	6.8
Luxembourg	-	-	-	-	-	-	-	-	-	-
Netherlands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Austria	3,101	3,400	1,066	3,495	45.8	49.9	3,333	12,756	15.0	13.2
Portugal	299	384	7,622	5,129	15.3	16.1	55,646	63,703	1.9	1.9
Finland	1,175 ⁽⁴⁾	189	100	2,100	48.6	18.9	5,000	1,344	0.8	2.2
Sweden ⁽⁵⁾	-	-	-	-	-	-	-	-	-	-
United Kingdom	25	113	1,340	1,295	29.7	29.5	1,922	3,537	n.a.	n.a.
EU ⁽⁶⁾	29,095	46,080	15,753	50,347	24.1	25.2	123,342	239,331	1.9	4.0

(1) In 1996 only use of the so-called "Geldkarte" only in the pilot region Ravensburg/Weingarten.

(2) E-money schemes are in pilot phase.

(3) Spanish figures also include unloading transactions other than purchases.

(4) A new source of data has been used for 1997 which makes figures not comparable with previous years.

(5) Sweden started to collect data on electronic money from January 1997.

(6) Average without countries where data are not available.

Table 5

Use of debit/credit 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 ⁽¹⁾		Cards with a cheque guarantee function		Retailer cards		Cash withdrawals per card with a cash function		Payments per card with a credit/debit function ⁽²⁾	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Belgium	1,043	1,116	1,043	1,116	430	468	135	140	15	14	24	25
Denmark	584	583	584	583	13	10	n.a.	n.a.	n.a.	n.a.	92	102
Germany	n.a.	n.a.	982	1,038	488	508	60	61	n.a.	n.a.	6	6
Greece	229	234	246	293	n.a.	n.a.	n.a.	n.a.	24	25	10	7
Spain	845	910	842	897	-	-	n.a.	n.a.	18	17	9	10
France	466	515	437	473	n.a.	n.a.	n.a.	n.a.	39	39	82	83
Ireland	794	734	272	397	227	258	n.a.	n.a.	26	32	32	24
Italy	266	301	393	426	20	16	n.a.	n.a.	24	24	8	11
Luxembourg	1,134	1,225	1,286	1,378	698	714	n.a.	n.a.	9	8	n.a.	n.a.
Netherlands	1,219	1,540	119	163	38	26	n.a.	n.a.	24	22	n.a.	n.a.
Austria	510	576	591	662	294	303	10	12	18	17	7	8
Portugal	708	818	787	915	66	53	14	24	26	26	25	27
Finland	930	1,002	638	693	1	1	308	308	45	43	83	82
Sweden	715	774	636	691	-	-	n.a.	n.a.	47	46	21	28
United Kingdom	1,514	1,641	1,133	1,271	862	903	262	298	18	18	35	35
EU ⁽²⁾	670	741	722	786	340	354	n.a.	n.a.	26	25	27	28

(1) In Germany: including bank customer cards.

(2) Average without countries where data are not available.

Table 6**Major Interbank Funds Transfer Systems in the European Union***(end-1997)***(1) LARGE-VALUE SYSTEMS**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Name of the system	Number of transactions (thousands)		Value of transactions (ECU billions)		Average value of transactions (ECU millions)	
									1996	1997	1996	1997	1996	1997
BE	(a)	RTT	RTGS	RM	C	F	16.45	ELLIPS (started on 24 September 1996)	213	955	1,846	8,455	8.7	8.85
DK	CB	RTT	RTGS	O	C	V	15.30	DN Inquiry and transfer system	426	369	2,261	2,421	5.31	6.56
DE	CB	RTT	N/GS	RM	C	F	12.45	EAF2	18,800	22,400	80,338	92,481	4.27	4.13
DE	CB	RTT	RTGS	O	D	F	15.00	Eiliger Zahlungsverkehr	7,200	10,600	15,052	17,001	2.09	1.60
ES	CB	RTT	RTGS	O	C	F	14.00	STMD	1,130	1,375	19,434	20,061	17.20	14.59
ES	B	RTT	N	O	C	F	12.00	Madrid Clearing House	2,035	2,147	9,337	9,904	4.59	4.61
FR	CB	RTT	RTGS	O	D	F	17.00	TBF***	-	100	-	4,342	-	43.42
FR	B	RTT	N	O	D	F	15.30	SNP***	-	500	-	7,200	-	14.40
FR	CB	RTT	N	RM	C	F	13.00	SAGITTAIRE	4,700	4,700	17,540	18,204	3.73	3.87
IE	B	RTT	GS	RM	C	S	15.00	Special Presentations	3	1	8	12	2.56	9.26
IE	CB	RTT	RTGS	RM	C	F	16.00	IRIS RTGS System*	152	343	931	3,245	6.13	9.46
IT	CB	RTT	N	O	C	F	14.00	Ingrosso (SIPS)	5,326	6,057	17,627	21,516	3.31	3.55
IT	CB	RTT	RTGS	O	C	V	16.20	BI-REL	1,129	2,694	1,388	2,268	1.23	0.84
IT	CB	RTT	N	O	C	V	15.30	Electronic Memoranda	1,651	1,452	11,792	13,075	7.14	9.00
NL	CB	ACH	N	O	C	F	12.45	TOP	2,699	3,096	10,569	12,200	3.92	3.94
AT	B	RTT	RTGS	RM	C	F	13.00	ARTIS	920	950	572	493	0.62	0.52
PT	CB	RTT	RTGS	O	C	F	16.00	SPGT	417	507	2,530	3,675	6.07	7.25
FI	CB	RTT	RTGS	RM	C	F	16.30	BOF-RTGS	99	101	1,367	1,533	13.81	15.19
SE	CB	RTT	RTGS	RM	C	F	16.30	RIX	310	326	9,183	9,484	29.62	29.09
UK	B	RTT	RTGS	RM	D	V	15.45	CHAPS**	14,400	16,500	35,489	52,046	2.46	3.15
EU	B	RTT	N	RM	C	F	14.00	ECU Clearing and Settlement System	1,607	1,607	11,876	11,876	7.39	7.39

(1) Country

(2) Owner/manager: B = banks; CB = central banks.

(3) Processing method: M = manual; ACH = Automated Clearing House (offline); 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 (below variable cost); N = no costs.

(8) Closing time for same-day transactions.

* RTGS from 3/1997

** RTGS from 1996 Q2

*** Since 1997

(a) Owner: B; Manager: CB

Table 6
(continued)

(2) SYSTEMS WHICH PROCESS LARGE-VALUE AND RETAIL TRANSACTIONS									Number of transactions (thousands)		Value of transactions (ECU billions)		Average value of transactions (ECU thousands)	
(1)	(2)	N	(4)	(5)	(6)	(7)	(8)	Name of the system	1996	1997	1996	1997	1996	1997
BE	(a)	(b)	N	O	C	F	15.00	CEC	867,920	880,603	678	455	0.8	0.5
BE	CB	M	N	O	D	S	15.00	Clearing House of Belgium	11,570	6,780	6,187	134	535	20
DE	CB	M	GS	O	D	N	13.00	Conventional local credit transfer system ⁽⁹⁾	3,100	600	2,027	1,007	654	1,678
DE	CB	M	N	O	D	V	13.00	Daily local clearing	1,000	300	2,058	549	2,058	1,829
GR	B	M	N	O	D	V	16.00	Athens Clearing Office	8,801	7,477	571	630	65	84
FR	CB	M	GS	O	D	N	15.30	Banque de France	15,000	1,600	5,363	4,208	358	2,630
LU	B	M	N	O	C	F	10.30	Clearing House	6,700	6,950	13	12	2	2
FI	B	(c)	BN	O	D	F	14.30	Banks' Payment Clearing	267,200	277,400	402	371	2	1

(1) Country.

(2) Owner/manager: B = banks; CB = central banks.

(3) Processing method: M = manual; ACH = Automated Clearing House (offline); 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 (below variable cost); N = no costs.

(8) Closing time for same-day transactions.

(9) System was closed down end of May 1997.

(a) Owner: B; Manager: CB

(b) ACH and RTT.

(c) Batch processing and transmission.

Table 6

(continued)

(3) RETAIL SYSTEMS								Number of transactions (millions)		Value of transactions (ECU billions)		Average value of transactions (ECU)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Name of the system	1996	1997	1996	1997	1996	1997
DK	CB	ACH	N	O	C/D	S	9.00	DN Retail clearing	605	656	412	433	681	661
DE	CB	(c)	GS	O	D	V	NO	Machine-optical voucher reading procedure (MAOBE)	78	28	126	111	1,618	4,021
DE	CB	ACH	GS	O	D	V	NO	Paperless exchange of data media (DTA)	2,198	2,217	2,298	2,200	1,045	992
GR	B	ACH	N	O	C	F	19.00	DIAS	9.3	11.2	22.8	31.4	2.4	2.8
ES	B	M	N	O	C	F	NO	Clearing Houses (*)	14	-	48	-	3,575	-
ES	CB	RTT	BN	RM	C	V	NO	SNCE	664	736	802	902	1,209	1,226
FR	B/C	M	N	O	D	N	11.00/ 15.00	Clearing Houses	3,634	3,623	20,230	13,649	5,567	3,767
FR	CB	ACH	N	RM	D	F	11.00	Computer Clearing Centres	-	-	-	-	-	-
FR	CB	ACH	N	O	D	V	NO	CREIC	293	285	25	24	85	83
FR	B	ACH	N	RM	D	F	10.30	National system for payment by cards	965	392	49	18	51	47
FR	B	RTT	BN	RM	D	F	13.30	Interbank Teleclearing System (SIT)	3,940	4,920	1,900	2,090	482	425
IE	B	(d)	N	RM	C	F	NO	Dublin Bankers' Clearing	174	190	199	394	1,141	2,071
IT	CB	RTT (e)	N	O	D	V	13.30	Local Clearing	226	218	1,479	1,328	6,556	6,102
IT	CB	ACH	N	O	C	F	NO (f)	Retail sub-system	664	711	808	928	1,216	1,306
NL	B	ACH	N	O	C	F	11.30	Interpay (former BankGiro System)	1,589	1,783	1,084	1,137	682	638
PT	B	RTT	N	RM	C	V	NO	SICOI ⁽⁹⁾	587	676	505	351	861	519
SE	B	ACH	N	O	C	F	NO	Bank Giro System	250	n.a.	247	n.a.	988	n.a.
UK	B	ACH	N	RM	C	F	NO	BACS ⁽¹⁰⁾	2,476	2,682	1,537	2,068	621	771
UK	B	M	N	RM	D	F	NO	Cheque and Credit Clearings	2136 ⁽¹⁰⁾	2,239	1542 ⁽¹⁰⁾	2,050	722 ⁽¹⁰⁾	916

(1) Country.

(2) Owner/manager: B = banks; CB = central banks.

(3) Processing method: M = manual; ACH = Automated Clearing House (offline); 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 (below variable cost); N = no costs.

(8) Closing time for same-day transactions.

(9) Telecompensação and Traditional Clearing since 1996.

(10) Figures exclude Northern Ireland and Scotland.

(c) ACH for paper-based instruments.

(d) M and ACH.

(e) Transactions can also be transmitted by floppy disk.

(f) Except for the credit transfers entered before noon which are settled on the same day.

* From January 1997 on, retail payments are processed entirely through the SNCE system.

Table 7

Use of cashless payment instruments

(total number of transactions, in millions)

	Cheques		Payments by credit/debit/retailer cards		Credit transfers		Direct debits		Others ⁽¹⁾		TOTAL	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Belgium	110	96	249	282	695	697	114	118	1.5	10.2	1,169	1,203
Denmark	85	77	282	314	n.a.	n.a.	96	105	3.7	5.5	467	501
Germany	772	729	504	529	5,907	6,178	4,829	5,393	0.2 ⁽²⁾	4.2	12,012	12,834
Greece	3.3	3.6	26	21	3 ⁽³⁾	6.3	1.1	0.9	n.a. ⁽⁴⁾	n.a. ⁽⁴⁾	34	32
Spain	205	217	294	348	232	240	671	753	121.3	108.2	1,523	1,666
France	4,952	4,926	2,084	2,301	1,775	1,851	1,344	1,430	143	138	10,298	10,646
Ireland	192	200	31	35	92	106	55	61	-	-	370	401
Italy	677	657	191	264	944	976	163	201	242.5	250.0	2,217	2,347
Luxembourg	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	104	81	371	486	1,329	1,382	659	725	n.a.	n.a.	2,463	2,673
Austria	28	26	32	44	462	466	205	219	1.0	1.4	728	756
Portugal	262	267	197	252	44	47	65	68	12.3	12.6	580	647
Finland	4	3	270	292	424	444	24	26	3.9	0.1	726	765
Sweden	n.a.	n.a.	120	173	637	660	54	65	-	-	811	898
United Kingdom	2,643	2,582	2,305	2,631	1,589	1,660	1,443	1,584	neg.	neg.	7,980	8,457
EU ⁽⁵⁾	10,036	9,863	6,957	7,971	14,137	14,713	9,722	10,749	529	530	41,384	43,833

- (1) Includes the items "electronic money payments" and "others" from country table 14.
- (2) In 1996 only use of so-called "GeldKarte" in the pilot region Ravensburg/Weingarten.
- (3) The figure does not include paper-based credit transfers.
- (4) E-money schemes are in pilot phase.
- (5) Sum without countries where data are not available.

Table 8**Use of cashless payment instruments***(number of instruments per inhabitant)*

	Cheques		Payments by credit/debit/retailer cards		Credit transfers		Direct debits		Others ⁽¹⁾		TOTAL	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Belgium	11	9	25	28	68	68	11	12	0.2	1.0	115	118
Denmark	16	14	54	59	n.a.	n.a.	18	20	0.7	1.0	89	95
Germany	9	9	6	6	72	75	59	66	0 ⁽²⁾	0	147	156
Greece	0.32	0.34	2.5	2.0	0.3 ⁽³⁾	0.6	0.1	0.1	n.a. ⁽⁴⁾	n.a. ⁽⁴⁾	3	3
Spain	5	6	7	9	6	6	17	19	3.1	2.8	39	42
France	85	84	36	39	30	32	23	24	2	2	176	181
Ireland	53	54	9	9	25	29	15	17	-	-	102	109
Italy	12	11	3	5	16	17	3	3	4.2	4.3	39	41
Luxembourg	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	7	5	24	31	86	89	42	46	n.a.	n.a.	159	171
Austria	3	3	4	5	57	58	25	27	0.1	0.2	90	94
Portugal	26	27	20	25	4	5	7	7	1.2	1.3	58	65
Finland	1	1	53	57	83	86	5	5	0.8	0.01	142	149
Sweden	n.a.	n.a.	14	20	72	75	6	7	-	-	92	102
United Kingdom	45	44	39	45	27	28	25	27	-	-	136	143
EU ⁽⁵⁾	28	27	19	21	38	40	29	31	2.7	2.7	111	117

(1) This item includes the items "electronic money payments" and "others" from country table 14.

(2) In 1996 only use of so-called "GeldKarte" in the pilot region Ravensburg/Weingarten.

(3) The figure does not include paper-based credit transfers.

(4) E-money schemes are in pilot phase.

(5) Average without countries where data are not available.

Table 9

Use of cashless payment instruments

(as a percentage of total number of transactions)

	Cheques		Payments by credit/debit/retailer cards		Credit transfers		Direct debits		Others ⁽¹⁾	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Belgium	9.4%	8.0%	21.3%	23.4%	59.4%	58.0%	9.7%	9.8%	neg.	0.8%
Denmark	18.1%	15.3%	60.5%	62.6%	n.a.	n.a.	20.7%	21.0%	0.8%	1.1%
Germany	6.4%	5.7%	4.2%	4.1%	49.2%	48.2%	40.2%	42.0%	- ⁽²⁾	neg.
Greece	9.9%	12.3%	78%	74%	10% ⁽³⁾	22%	3.2%	3.2%	n.a. ⁽⁴⁾	n.a. ⁽⁴⁾
Spain	13.5%	13.0%	19.3%	20.9%	15.2%	14.4%	44.1%	45.2%	8.0%	6.5%
France	48.1%	46.3%	20.2%	21.6%	17.2%	17.4%	13.1%	13.4%	1.4%	1.3%
Ireland	51.9%	49.8%	8.5%	8.7%	24.9%	26.3%	14.8%	15.1%	-	-
Italy	30.5%	28.0%	8.6%	11.2%	42.6%	41.6%	7.3%	8.6%	10.9%	10.6%
Luxembourg	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	4.2%	3.0%	15.1%	18.2%	54.0%	51.7%	26.8%	27.1%	n.a.	n.a.
Austria	3.8%	3.4%	4.4%	5.8%	63.5%	61.6%	28.2%	29.0%	neg.	neg.
Portugal	45.1%	41.3%	33.9%	38.9%	7.6%	7.3%	11.2%	10.5%	2.1%	2.0%
Finland	0.5%	0.4%	37.2%	38.2%	58.5%	58.0%	3.3%	3.4%	0.5%	neg.
Sweden	n.a.	n.a.	14.8%	19.3%	78.5%	73.5%	6.7%	7.2%	-	-
United Kingdom	33.1%	30.5%	28.9%	31.1%	19.9%	19.6%	18.1%	18.7%	neg.	neg.
EU ⁽⁵⁾	24.8%	23.1%	16.8%	18.2%	34.7%	34.1%	26.1%	26.3%	2.4%	2.3%

(1) This item includes the items "electronic money payments" and "others" from country table 14.

(2) In 1996 only use of the so-called "GeldKarte" in the pilot region Ravensburg/Weingarten.

(3) The figure only includes paperless credit transfers. Paper-based credit transfers are not available.

(4) E-money schemes are in pilot phase.

(5) Without countries where data are not available.

Table 10

Features of selected securities settlement systems in the European Union

COUNTRY	BE		DK	DE		ES		
Name of the system	NBB Clearing	CIK	VP	BOSCA ⁽¹⁾	CASCADE	CADE ⁽²⁾	SCLV	ESPACLEAR
Type of securities ⁽³⁾	G, O, CDs	S, B	G, B, S, O	G, B, O	G, S, B	G, C	S, B	B
Owner/manager ⁽⁴⁾	CB	B	VP	CB	SE	CB	SE	SE
Number of participants	183	140	215	ca. 2400	385	276	103	98
<i>of which direct participants</i>	<i>183</i>	<i>140</i>	<i>200</i>		<i>385</i>	<i>276</i>	<i>103</i>	<i>98</i>
Settlement of cash leg ⁽⁵⁾	GS	GS	N	GS	N, RTGS	GS	N	N
Securities settlement (delivery)	GS	N	N	RTGS, GS	RTGS, GS	GS	GS	GS
Delivery lag	T+2, T+3 ⁽⁶⁾	T+3 ⁽⁷⁾	T+3	T	T +0-40	T	T+3	T+1
DVP mechanism ⁽⁸⁾	DVP 1	DVP 1	DVP3	DVP 1	DVP 1 + 2	DVP 1	DVP 2	DVP 2
Intraday finality ⁽⁹⁾	Y	Y	Y	Y	Y	N	N	N
Central securities depository	NBB	CIK	VP	Deutsche Börse Clearing	Deutsche Börse Clearing	CADE	SCLV	ESPACLEAR
Cash settlement agent ⁽¹⁰⁾	CB	CB	CB, B	CB	CB	STMD (BE)	STMD (BE)	STMD (BE)
Number of transactions (thousands)	200	770,000	3,300	n.a.	31,200	8,428	6,670	23.05
Value of transactions (ECU millions)	2,551,637	30,321	3,110,268	n.a.	9,594,329	26,580,136	166,553	21,261
Ratio of value of transactions to GDP (at annual rate)	11.9	0.14	22.2	n.a.	5.18	56.32	0.35	0.05

Table 10

(continued)

COUNTRY	GR	FR	IE	IT	NL	AT		
Name of the system	SCS	SATURNE	RELIT	CBISSO	LDT	Necigef	Clearing-instituut DNB	DS System
Type of securities ⁽³⁾	G	G, O	B, G, O	G	G, S, B, O	G, S, B	C, O	G, C, B, C, O
Owner/manager ⁽⁴⁾	CB	SICOVAM SA/ CB	SICOVAM SA	CB	CB	CB, B, SE	CB	B
Number of participants	99	322	248		281	55	85	113
<i>of which direct participants</i>	99	322	248	38	281	55	85	113
Settlement of cash leg ⁽⁵⁾	N	N	N	N	N	RTGS	N	N
Securities settlement (delivery)	Y	GS	GS	GS	N	RTGS	N	GS
Delivery lag	From T to T+365	From T to T+100	From T to T+30	T+1	T+3 G, B ⁽¹¹⁾ T+5 S, O	T+3	T, T+3	T+0 - 60
DVP mechanism ⁽⁸⁾	DVP 3	DVP 2	DVP 2	DVP 2/3	DVP 3	DVP 1	DVP 3	DVP 2
Intraday finality ⁽⁹⁾	N	N	N	Y	N	Y	Y	Y
Central securities depository	SCS	CB for G	SICOVAM SA	CBISSO	BI-CAT G Montetitoli S, B, O	Necigef	CB	OeKB
Cash settlement agent ⁽¹⁰⁾	CB	CB	CB	CB	CB	CB, B	CB	B
Number of transactions (thousands)	31	330	17,800	147	30,609	1,685	3	138
Value of transactions (ECU millions)	61,709	8,444,515	11,741,781	128,318	21,805,693	n.a.	84,584	188,283
Ratio of value of transactions to GDP (at annual rate)	0.58	6.87	9.55		21.6	n.a.	0.27	1.03

Table 10

(continued)

COUNTRY	PT			FI				SE
Name of the system	SISTEM	INTERBOLSA	OPORTO DERIVATIVES STOCK EXCHANGE (BDP)	APK MONEY MARKET	APK SHARES	HEX	FOEX	VP
Type of securities ⁽³⁾	G, O	B, S	S, O	G, C, O, B	S	O	O	G, S, B, C
Owner/manager ⁽⁴⁾	CB	INTERBOLSA	BDP	CB, B, O	CB, B, O	B, O	B, O	B, O
Number of participants	108	58	26	17	28	27	15	
<i>of which direct participants</i>	<i>108</i>	<i>58</i>	<i>26</i>	<i>17</i>	<i>22</i>	<i>27</i>	<i>15</i>	
Settlement of cash leg ⁽⁵⁾	RTGS	N	N	RTGS, N				N, RTGS
Securities settlement (delivery)	RTGS/ INTERBOLSA	N	N	RTGS, N	GS	N, GS	N, GS	GS, RTGS
Delivery lag	10/15 minutes	T+3	T	T+2, T+3	T+3	T+3	T+3	T+2, T+3, RTGS T
DVP mechanism ⁽⁸⁾	DVP 1	DVP 3	-	DVP 1 + 2 + 3	DVP2	-	-	DVP 2/3/ DVP 1
Intraday finality ⁽⁹⁾	Y	N	N	Y	Y	N	N	Y
Central securities depository	CB/ INTERBOLSA	INTERBOLSA	INTERBOLSA	APK MONEY MARKET	APK	SOM	FOEX	VPC
Cash settlement agent ⁽¹⁰⁾	CB	CB	CB	CB	CB	B	B	CB
Number of transactions (thousands)	3.3	1,787.9	0.4	61.8	784.3	7,474.7	58.3	5,313
Value of transactions (ECU millions)	116,462	186,335	1,459	713,657	31,657	398,131	761	9,549,920
Ratio of value of transactions to GDP (at annual rate)	1.31	2.10	0.02	6.82	0.30	3.80	0.01	47.3

Table 10

(continued)

COUNTRY	UK		
	CGO	CMO	CREST ⁽¹²⁾
Name of the system	CGO	CMO	CREST ⁽¹²⁾
Type of securities ⁽³⁾	G+O	G, C, O, B	S
Owner/manager ⁽⁴⁾	CB	CB	B, SE, O
Number of participants	n.a.	n.a.	n.a.
<i>of which direct participants</i>	232	88	3,432
Settlement of cash leg ⁽⁵⁾	N	N	N
Securities settlement (delivery)	RTGS	RTGS	RTGS
Delivery lag	T,-T+1	T	T+5
DVP mechanism ⁽⁸⁾	DVP 2	DVP 2	DVP 2
Intraday finality ⁽⁹⁾	Y	Y	Y
Central securities depository	n.a.	CMO	n.a.
Cash settlement agent ⁽¹⁰⁾	CB	CB	B
Number of transactions (thousands)	950	263	29,005
Value of transactions (ECU millions)	40,854,794	5,549,769	5,772,222
Ratio of value of transactions to GDP (at annual rate)	36	5	5

Footnotes to Table 10:

- (1) For monetary policy and payment operations only; the Deutsche Bundesbank acts as an intermediate custodian.
- (2) "Central de Anotaciones de Deuda Española", formerly SACDE.
- (3) B = bonds; C = CDs; G = government securities; S = shares; O = others.
- (4) B = banks; CB = central banks; SE = stock exchange; O = others.
- (5) GS = gross settlement, N = net; RTGS = real-time gross settlement.
- (6) T+2 for Treasury Bills, T+3 for bonds
- (7) The seller keeps the initiative of delivering securities.
DVP schemes as defined by the G-10 group:
DVP 1: In model 1, transfer instructions for both securities and funds are settled on a trade-by-trade basis, with final transfer of the securities from the seller to the buyer (delivery) occurring at the same time as final transfer of the funds from the buyer to the seller (payment)
DVP 2: In model 2, securities transfer instructions are settled on a gross basis with final transfer of securities from the seller to the buyer (delivery) occurring throughout the processing cycle, but funds transfer instructions are settled on a net basis, with final transfers of funds from the buyer to the seller (payment) occurring at the end of the processing cycle.
- (8) DVP 3: In model 3, transfer instructions for both securities and funds are settled on a net basis, with final transfers of both securities and funds occurring at the end of the processing cycle.
- (9) Y = yes; N = no.
- (10) B = banks; CB = central banks; SE = stock exchange; O = others.
- (11) T+2 for government bills.
- (12) CREST commenced operations on 15 July 1996. Following the orderly transfer of securities from TALISMAN to CREST, TALISMAN closed on 7 April 1997.

Table 11

Geographical breakdown of S.W.I.F.T. message flows

(in 1997)

	Messages sent			Total (thousands)	Messages received	
	Total (thousands)	To domestic users (% of total)	To other EU countries (% of total)		From domestic users (% of total)	From other EU countries (% of total)
Belgium	31,356	19.58%	51.60%	27,950	21.96%	51.24%
Denmark	8,665	14.16%	53.17%	7,893	15.55%	52.74%
Germany	55,874	13.24%	42.34%	66,287	11.16%	47.76%
Greece	4,750	24.37%	47.08%	4,247	27.25%	44.47%
Spain	17,723	23.67%	48.04%	17,486	23.99%	46.95%
France	48,757	32.80%	38.91%	45,940	34.81%	37.38%
Ireland	3,609	25.95%	46.25%	4,393	21.32%	49.17%
Italy	31,673	13.03%	52.93%	32,743	12.61%	52.90%
Luxembourg	16,614	17.48%	52.20%	16,280	17.84%	48.71%
Netherlands	21,968	11.18%	53.31%	20,200	12.16%	54.80%
Austria	14,531	22.50%	47.52%	12,239	26.71%	42.38%
Portugal	4,898	8.92%	67.07%	4,504	9.70%	64.30%
Finland	5,751	6.80%	58.81%	3,793	10.30%	54.33%
Sweden	12,513	16.38%	51.85%	10,296	19.91%	48.19%
United Kingdom	100,441	23.80%	32.32%	101,915	23.45%	33.84%
Total EU	379,122	9.43%	20.38%	376,166	9.43%	20.38%
Total non-EU	432,996	8.06%	16.87%	435,951	8.06%	16.51%
Total all countries	812,118	17.49%	37.25%	812,118	17.49%	36.89%

Table 12**S.W.I.F.T. traffic: intra-EU message flows***(in 1997, number of messages, in thousands)*

From / To	BE	DK	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	Total EU	Non-EU	All countries
Belgium	6,139	266	2,147	147	646	2,352	188	1,235	1,443	2,420	269	221	120	275	4,451	22,317	9,039	31,356
Denmark	327	1,227	1,148	37	135	281	38	278	180	289	84	58	159	640	955	5,834	2,831	8,665
Germany	1,678	820	7,396	465	1,198	2,664	272	3,129	1,260	2,331	2,055	376	308	695	6,402	31,051	24,823	55,874
Greece	147	34	486	1,158	83	196	11	428	38	101	43	16	11	37	605	3,394	1,356	4,750
Spain	546	130	1,415	60	4,196	1,462	71	1,112	211	351	138	539	45	133	2,303	12,710	5,014	17,723
France	2,084	246	3,674	169	1,487	15,993	150	2,728	947	1,017	319	481	98	270	5,316	34,979	13,778	48,757
Ireland	129	27	224	10	59	138	937	94	31	94	21	20	12	27	780	2,606	1,003	3,609
Italy	1,038	242	3,564	219	953	2,474	103	4,128	1,114	659	864	209	75	212	5,040	20,893	10,780	31,673
Luxembourg	1,797	160	1,893	52	234	1,108	35	1,057	2,904	510	150	95	58	187	1,335	11,575	5,038	16,614
Netherlands	2,236	224	2,958	75	386	997	91	716	548	2,457	235	130	85	212	2,821	14,169	7,799	21,968
Austria	256	99	3,431	60	158	352	29	1,014	143	283	3,270	50	46	114	869	10,175	4,357	14,531
Portugal	217	45	500	16	750	463	22	340	72	128	41	437	19	49	621	3,722	1,176	4,898
Finland	266	201	669	14	82	142	17	157	99	150	54	30	391	584	916	3,773	1,978	5,751
Sweden	297	725	1,268	51	173	332	43	317	222	310	126	80	466	2,050	2,077	8,537	3,976	12,513
United Kingdom	3,305	944	8,285	514	1,866	4,226	1,091	4,717	1,623	2,425	788	590	558	1,527	23,902	56,361	44,081	100,441
Total EU	20,461	5,390	39,058	3,046	12,406	33,181	3,096	21,449	10,834	13,526	8,456	3,332	2,452	7,011	58,394	242,094	137,027	379,122
Total non-EU	7,490	2,502	27,229	1,201	5,080	12,759	1,296	11,294	5,446	6,673	3,783	1,171	1,341	3,285	43,521	134,072	298,924	432,996
Total all countries	27,950	7,893	66,287	4,247	17,486	45,940	4,393	32,743	16,280	20,200	12,239	4,504	3,793	10,296	101,915	376,166	435,951	812,118

Table 13

S.W.I.F.T. members, sub-members and participants

	Number of users of S.W.I.F.T. network			
	Members	Sub-members	Participants	Total number of users
Belgium	32	39	5	76
Denmark	34	8	1	43
Germany	153	101	8	262
Greece	22	21	0	43
Spain	53	60	2	115
France	100	104	34	238
Ireland	13	25	17	55
Italy	181	44	2	227
Luxembourg	29	125	4	158
Netherlands	29	32	4	65
Austria	62	16	3	81
Portugal	29	16	1	46
Finland	9	6	0	15
Sweden	7	12	2	21
United Kingdom	63	241	104	408
Total EU	816	850	187	1,853
Total non-EU	2,153	1,740	419	4,312
Total all countries	2,969	2,590	606	6,165

Table 14

Relative share of EU countries in S.W.I.F.T. traffic, membership and shareholding

	Share of messages		Share of total		Share of equity holding	
	sent	received	members	users	quantity	percentage
Belgium	3.86%	3.44%	1.08%	1.23%	2,548	2.90%
Denmark	1.07%	0.97%	1.15%	0.70%	1,130	1.28%
Germany	6.88%	8.16%	5.15%	4.25%	7,122	8.10%
Greece	0.58%	0.52%	0.74%	0.70%	459	0.52%
Spain	2.18%	2.15%	1.79%	1.87%	2,077	2.36%
France	6.00%	5.66%	3.37%	3.86%	6,607	7.51%
Ireland	0.44%	0.54%	0.44%	0.89%	392	0.45%
Italy	3.90%	4.03%	6.10%	3.68%	4,582	5.21%
Luxembourg	2.05%	2.00%	0.98%	2.56%	1,118	1.27%
Netherlands	2.70%	2.49%	0.98%	1.05%	3,439	3.91%
Austria	1.79%	1.51%	2.09%	1.31%	1,975	2.24%
Portugal	0.60%	0.55%	0.98%	0.75%	772	0.88%
Finland	0.71%	0.47%	0.30%	0.24%	834	0.95%
Sweden	1.54%	1.27%	0.24%	0.34%	1,560	1.77%
United Kingdom	12.37%	12.55%	2.12%	6.62%	6,127	6.96%
Total EU	46.68%	46.32%	27.48%	30.06%	40,742	46.31%
Total non-EU	53.32%	53.68%	72.52%	69.94%	47,238	53.69%
Total all countries	100.00%	100.00%	100.00%	100.00%	87,980	100.00%

Comparative tables:

Direct participation and
access criteria in EU IFTS

Risk control measures in EU
large value net settlement
systems

Situation at 30 December 1997

Table A(1)

Direct participants in EU RTGS systems

	BE	DK	DE	ES	FR	IE	IT	NL	AT	PT	FI	SE	UK
	ELLIPS	DN-Inquiry	EIL-ZV	SLBE	TBF	IRIS	BI-REL	TOP	ARTIS	SPGT	BOF System	RIX	CHAPS
Direct participants	22	103	2,947	255	219	24	791	124	84	44	20	30	17
Credit Institutions	20	96	2,946	225	202	23	777	113	82	42	14	24	16
<i>Branches of other EU banks</i>	3	6	46	25	6	4	27	8	2	7	6	10	3
<i>Branches of non-EU banks</i>	2	1	31	20	3	0	17	10	0	2	0	1	1
<i>Remote participants</i>	1	0	15	0	1	0	0	0	0	0	0	0	0
Central bank	1	0	1	1		1	0	1	1	1	1	1	1
Non-banks	1	7	0	29	17	0	14	10	1	1	5	5	0
<i>Public authorities</i>	0	4	0	0	0	0	11	6	0	1	2	2	0
<i>Postal administration</i>	1	0	0	0	1	0	1	0	0	0	0	0	0
<i>Supervised financial institutions</i>	0	3	0	29	16	0	2	4	1	0	3	3	0
Institutions not meeting Principle 1 ⁽¹⁾	0	0	0	0	0	0	0	0	0	0	0	0	0

- (1) Principle 1 of the Report on Minimum Common Features for Domestic Payment Systems (1993): Direct access to IFTS. As a rule, only central banks and credit institutions, as defined under the 2BCD, can be admitted as direct participants in funds transfer systems which process third party payments. As exceptions, certain other bodies authorised to hold accounts for customer may also be, with the approval of the central bank, direct participants in such systems provided that (a) their public nature ensures little risk of failure or (b) they are supervised by a recognised competent authority.

Table A(2)

Direct participants in EU large-value/mixed net settlement systems

	DE	GR	ES	FR		IT		LU	FI
	EAF2 ⁽¹⁾	ACO	SEPI ⁽²⁾	Sagittaire	SNP	BI-COMP		LIPS-Net	POPS
						INGROSSO (SIPS) ⁽³⁾	Electronic Memoranda (ME) ⁽³⁾		
Direct participants	68	55	43	57	26	187	294	14	7
Credit Institutions	68	52	42	56	25	187	293	13	7
<i>Branches of other EU banks</i>	12	12	5	3	5	14	15	11	1
<i>Branches of non-EU banks</i>	7	9	3	4	2	9	9	0	0
<i>Remote participants</i>	0	0	0	0	0	0	0	0	0
Central bank	0	1	1	1	0	0	1	0	0
Non-banks	0	2	0	0	1	0	0	1	0
<i>Public authorities</i>	0	0	0	0	0	0	0	0	0
<i>Postal administration</i>	0	1	0	0	1	0	0	1	0
<i>Supervised financial institutions</i>	0	1	0	0	0	0	0	0	0
Institutions not meeting Principle 1	0	0	0	0	0	0	0	0	0

(1) Transformed into a liquidity sharing system (risk situation comparable to that of a gross settlement system).

(2) Spanish Service of Interbank Payments, the large-value net settlement system performed at the Madrid Clearing House.

(3) As of January 1998 both systems were replaced by RTGS system (BI-REL).

Table A(3)

Direct participants in retail EU IFTSs

	BE	DK	DE		GR	ES	FR		IE	IT		PT	NL	FI	UK	
	CEC ⁽¹⁾	DN Retail Clearing	MAOBE	DTA	DIAS	SNCE	Paris and Province CH and CREIC ⁽⁴⁾	SIT	DBC	BICOMP		SICOI ⁽⁶⁾	Interpay	PMJ	BACS	Cheque and Credit Clearing
										Retail System	Local Clearing					
Direct participants	26	68	5,097 ⁽³⁾	5,097 ⁽³⁾	34	69	238	23	13 ⁽⁵⁾	211	251	46	72	9	16	13
Credit Institutions	23	61	5,096 ⁽³⁾	5,096 ⁽³⁾	33	68	234	20	12	209	248	44	71	9	15	12
<i>Branches of other EU banks</i>	4	5	46	46	9	5	12	0	4	15	3	7	7	3	0	0
<i>Branches of non-EU banks</i>	2	1	31	31	5	3	2	0	0	9	3	2	7	0	0	0
<i>Remote participants</i>	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0
Central bank	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1
Non-banks	2	0	0	0	1	0	3	2	0	1	2	1	0	0	0	0
<i>Public authorities</i>	1 ⁽²⁾	0	0	0	0	0	2		0	0	1	1	0	0	0	0
<i>Postal administration</i>	1	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0
<i>Supervised financial institutions</i>	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
Institutions not meeting Principle 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(1) Revised figures: the previous figures were related to the number of members in the CEC and not to the number of direct participants.

(2) Rediscount and Guarantee Institute, a semi-official market-maker in discount bills.

(3) Number of accounts at the Deutsche Bundesbank of participating credit institutions.

(4) Truncated cheque system

(5) The Dublin Bankers' Clearing comprises four clearing banks, one savings bank and the Central Bank of Ireland. In addition, seven other banks have an interface with the DBC for the clearance of paper debits.

(6) Includes Teleclearing and Traditional clearing.

Table B(1)

Access criteria to EU RTGS systems

	BE	DK	DE	ES	FR	IE	IT	AT	PT	FI	SE	UK
	ELLIPS	DN- Inquiry	EIL-ZV	SLBE	TBF	IRIS	BI-REL	ARTIS	SPGT	BoF- RTGS	RIX	CHAPS
Access criteria												
<i>Written rules</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>Minimum level of data or ratios representative of the financial strength</i>	+	-	-	+	-	-	-	-	-	+	+	-
<i>Minimum number of transactions</i>	-	-	-	-	-	-	-	-	-	-	-	+
<i>Payment of an entry fee</i>	+	+	-	-	+	+	-	-	+	+	-	+
<i>Approval from the owner/manager or the direct participants</i>	+	+	+(1)	+(1)	+(1)	+(1)	+(1)	+	+(1)	+	+	+
<i>Approval from the local central bank</i>	+	+	+	+	+	+	+	-	+	+	+	+
<i>Technical requirements</i>	+	+	+	+	+	+	+	+	+	+	+	+
Removal rules	+	+	+	+	+	+	+	+	+	+	+	+

Key: + = Yes, - = No

(1) The owner/manager is the central bank.

Table B(2)

Access criteria on EU large-value net settlement systems

	DE	GR	ES	FR		IT	LU	FI
	EAF2	ACO	SEPI	Sagittaire	SNP	BI-COMP ⁽¹⁾	LIPS-Net	POPS
Access criteria								
<i>Written rules</i>	+	+	+	+	+	+	+	+
<i>Minimum level of data or ratios representative of the financial strength</i>	-	-	+	-	+	-	-	-
<i>Minimum number of transactions</i>	+	-	-	+	+	-	-	-
<i>Payment of an entry fee</i>	-	-	+	+	+	+	+	+
<i>Approval from the owner/manager or the direct participants</i>	+ ⁽²⁾	+	+	+	+	+	+	+
<i>Approval from the local central bank</i>	+	+	+	+	+	+	+	+
<i>Technical requirements</i>	+	+	+	+	+	+	+	+
Removal rules	+	+	+	+	+	+	+	+

Key: + = Yes, - = No

(1) Since January 1998 the large-value net settlement systems were replaced by RTGS systems (BI-REL).

(2) The owner/manager is the central bank.

Table C

Risk control measures in EU large value NSS

	DE	GR	ES	FR	IT	LU	FI
	EAF2	ACO	SEPI	SNP	BI-COMP ⁽⁴⁾	LIPS	POPS
1. Settlement in central banks' accounts			+	+		+	+
2. Same-day settlement			+	+		+	+
3. Compliance with Lamfalussy standards			+	as of Nov. 1998 ⁽³⁾		+	
1. Legal framework							(6)
<i>contractual (+) or advisory (-) netting</i>			+	+		+	
<i>if contractual: legally enforceable (+) or not (-)</i>			+	+		+	
2. Participants awareness			+	+		+	+
3. Risk management	Transformed into a hybrid system in March 1996 ⁽¹⁾	To be replaced by RTGS system 1998	+	+	To be replaced by RTGS system from 1998		+
<i>monitoring of intraday balance</i>			+			+	+
<i>multilateral limits</i>			+	Sept. 1998		+	-
<i>collateral requirements</i>			+	Nov. 1998		+	-
<i>intraday closures</i>			-	-		+(5)	
4. Timely settlement completion			+(2)	+(2)		+	(7)
<i>risk-sharing agreements</i>			+				-
<i>full collateralisation of all debit positions</i>			+(2)	+(2)		+	-
5. Fair open access			+	+		+	+
6. Technical reliability			+	+		+	+

Key: + = Yes, - = No

- (1) The risk situation is comparable to that of a gross settlement system.
- (2) Understood as "full collateralisation of the largest debit position" instead of "all debit position", as the Lamfalussy Standards are precisely formulated.
- (3) No particular provision for multi-default.
- (4) The replacement by RTGS regards only the two BI-COMP sub-systems which handle large-value payments i.e. Ingrosso and Electronic Memoranda.
- (5) LIPS-net has several clearing cycles per day. Only the last cycle is the final one. But in case of a failure of a technical incident, it is possible to close the system after one of the previous cycles.
- (6) The prevailing view in Finnish jurisprudence is that contractual bilateral netting as employed in the POPS-system is binding. The act on netting will be amended in two steps by the end of 1998 and during 1999, which will make payment netting general.
- (7) Risk-sharing agreements have not been implemented because of the small number of participants and the possibility to reduce risks by adjusting the bilateral limits. Collateralisation has not been implemented due to the bilateral structure. The POPS-limits are small and incorporated in overall interbank limits.

Annex 1

Methodology for the statistical data

Standard methodology for the statistical data of the Blue Book

Table 1: Basic statistical data

<i>Population and exchange rate:</i>	Figures are averages for the year.
<i>Population and GDP:</i>	Figures are provided by EUROSTAT (this is particularly important for GDP figures, which are calculated in each EU country according to a specific methodology) and <i>exchange rates</i> are provided by the Statistics Division of the EMI on the basis of the daily figures in its database received from EUROSTAT.

Table 2: Settlement media used by non-banks

<i>Notes and coins:</i>	In accordance with monetary statistics, <i>notes and coins</i> represent the value of cash in circulation in the economy. They exclude the value of notes and coins kept in vaults at central banks or at deposit-taking institutions mentioned in Table 5.
<i>Transferable deposits:</i>	These are deposits which can be used to make cashless payments using one of the instruments mentioned in Tables 14 and 15. They include deposits in foreign currencies unless these are included in M1; in the latter case, a line should be added below the M1 line to mention them.
<i>M1:</i>	Cash in circulation and sight deposits held by non-banks. This line does not need to be filled in by countries which no longer calculate this aggregate.
<i>Others:</i>	To be filled in only if M1 includes items other than " <i>notes and coins</i> " and " <i>transferable deposits</i> ".
<i>Outstanding value of electronic money schemes</i>	The difference between the value loaded on the electronic devices/chip card or hard disk of a computer and the value redeemed. For these statistics electronic money is broadly defined as an electronic store of monetary value on a technical device that may be widely used for making payments to undertakings other than the issuer without necessarily involving bank accounts in the transaction but acting as a prepaid bearer instrument. At present, two types of electronic money can be distinguished (i) electronic money stored on a chip card (card money); and (ii) electronic money used in systems which employ specialised software on a personal computer and which is typically transferred over telecommunication networks (software-based money).

Table 3: Settlement media used by deposit-taking institutions ♦

<i>Required reserves held at central bank:</i>	Deposits held at the central bank to fulfil minimum reserve requirements.
<i>Of which can be used as working balances</i>	<ul style="list-style-type: none"> ♦ if minimum reserves are required to be held as an average over a period of time, the whole required reserves are considered as working balances; ♦ in some countries only part of the required reserves can be used for payment purposes. This part is mentioned here.
<i>Free reserves held at central bank:</i>	Deposits held at the central bank in excess of <i>required reserves held at central bank</i> .
<i>Transferable deposits other institutions:</i>	Deposits held at other institutions (not the domestic <i>at central bank</i>) which can be used to make payments.

Table 4: Banknotes and coins*(end-of-year figures)*

<i>Total banknotes issued:</i>	Value of banknotes which are part of the liabilities of the central bank.
<i>Notes and coins held by credit institutions:</i>	Notes and coins in vaults of credit institutions and thus not in circulation (usually available from the bank account figures transmitted to banking supervisors).
<i>Notes and coins in circulation outside credit institutions:</i>	= difference: <i>total banknotes and coins issued</i> less <i>notes and coins held by credit institutions</i> (should be identical to “ <i>notes and coins</i> ” in Table 2).

Table 5: Institutional framework*(end-of-year figures)*

<i>Columns 1 and 2:</i>	Indicate the number of points of entry into the cashless payment system.
<i>Column 1: Number of institutions</i>	Any institution which executes cashless payments should be mentioned: even if it does not hold deposits for customers (e.g. because the money transferred is brought-in cash, or debited from a sight account held at another institution).
<i>Column 2: Number of branches:</i>	All branches of an institution; as a rule, the head office of the institution is counted as a branch if it offers payment services.
<i>Columns 3 and 4:</i>	Indicates the number of accounts on which cashless payments (see definition in Tables 14 and 15) can be made.
<i>Column 3: Number of accounts:</i>	<p>The accounts which are mentioned here are those which:</p> <ul style="list-style-type: none"> ♦ are held by deposit-taking institutions for non-deposit-taking institutions; ♦ can be debited directly using one of the instruments mentioned in Tables 14 and 15.

<i>Column 4: Value of accounts:</i>	Aggregate amount of deposits held on accounts mentioned in Column 3. As a rule, the total of the first five lines of the last column is identical to “transferable deposits” in Table 2.
<i>Branches of foreign banks:</i>	Branches or agencies of foreign banks. Banks which are foreign- owned, or subsidiaries of foreign banks are not included here.
<i>Of which based in EU countries:</i>	Sub-item to <i>branches of foreign banks</i> , giving the number of branches located in Europe to take into account their specific situation within the single market.

Table 6: Cash dispensers, ATMs and EFTPOS terminals

(end-of-year figures)

As a rule, all items include systems operated by banks and by non-banks.

<i>Cash dispensers:</i>	Electro-mechanical device allowing the authorised user to withdraw banknotes and, in some cases, coins.
<i>ATMs:</i>	Electro-mechanical device allowing the authorised user to withdraw cash from his account and/or to access a varying range of other services such as balance enquiry, transfer of funds and acceptance of deposits. The ATM may be operated online (with real-time reference to an authorisation database) or offline.
<i>Number of networks:</i>	A network of ATMs is defined as a group of ATMs managed by one or several service providers for a bank or group of banks. The customer of this bank/group of banks can use any ATM within this network without being charged additional fees.
<i>Number of machines:</i>	As a rule, each terminal is counted as one machine.
<i>EFTPOS:</i>	A terminal at a retail location which is designed to capture, and in some cases also transmit, payment information by electronic means.
<i>Number of points of sale:</i>	As a rule, each location (e.g. shop) in which one or several terminals are installed is counted as one point of sale.
<i>Number of machines</i>	As a rule, each EFTPOS terminal is counted as one machine.
Electronic money loading machines	Electro-mechanical device allowing the authorised user to load and reload electronic money cards.
Electronic money purchase terminals	A terminal at a retail location or incorporated in a vending machine which allows payments to be made by means of electronic money cards.

Table 7: Number of payment cards in circulation

(end-of-year figures in thousands)

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 should be counted in each of the first three main items); therefore, as indicated in the footnote, the figures should not be added.

Travel and entertainment cards are mentioned in the relevant category.

Delayed debit cards are mentioned in the debit category.

Cards with a cash function: All cards enabling the holder to withdraw cash from a cash dispenser.

*Cards with a debit/credit function:
Of which*

Debit cards: 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).

Delayed debit cards: 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.

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

Cards with a cheque guarantee function: Transactions with this card are, in connection with the use of a PIN, guaranteed by the issuing bank up to a specific amount.

Retailer cards: A card issued by non-banking institutions, to be used at specified retail outlets. The holder of the card is usually granted a line of credit.

Electronic money cards Chip card that allows electronic money payments to be carried out.

.

As a rule, only the number of valid cards in circulation is provided, not the number of cards issued, since this figure would not be very informative if empty or invalid cards were included.

Tables 8 and 9: Payment instructions handled by selected IFTS

IFTs: Interbank Funds Transfer Systems in which most (or all) direct participants are credit institutions and which are used primarily to process cashless payments.

As a rule, all IFTS are mentioned here, not only those managed by the central bank but also those managed by private operators.

Funds Transfer Systems (FTS): A formal arrangement, based on private contract or statute law, with multiple membership, common rules and standardised arrangements, for the transmission and settlement of money obligations arising between the members.

Table 10: Participants in securities settlement systems

(end-of-year figures)

Securities settlement systems (SSS) are transfer systems which settle transfer instructions for both securities and funds.

As a rule, all SSS are mentioned here, not only those managed by the central bank, but also those managed by private operators.

Figures are provided system by system with categories of various participants (such as banks, stockbrokers, etc.) as sub-items.

Column 2: In some systems certain participants are allowed to maintain both their own securities accounts and customers' securities accounts, while other participants are not allowed to maintain customers' accounts. In this column, the number of participants allowed to maintain customers' accounts is specified.

Column 3: In most systems, all participants hold securities settlement accounts but only some of them hold cash settlement accounts with the central bank to settle their cash positions, while others settle funds indirectly through another participant. In this column, the number of participants allowed to hold cash settlement accounts is indicated.

Tables 11 and 12: Transfer instructions handled by securities settlement systems

(volume and value of transactions)

Figures are provided system by system, with categories of various securities (such as government securities, bonds, shares, CDs, futures, options, etc.) as sub-items. Should some of the sub-items not be available, the row is marked "n.a."; if the sub-system does not exist in the country, it is marked "-".

Transfer instructions comprise all transfer instructions entered in the system (including free deliveries). As regards options, all the contracts settled in the system are included.

As far as CDs are concerned, all CDs settled in the system are considered regardless of their issuers (banks, central bank, mortgage institutions).

With regard to the volume and value of transactions, each transaction is counted once (not twice for sale and purchase orders).

Table 13: Nominal values registered by securities settlement systems

Figures are provided system by system, with categories of various securities. They refer to the nominal value at the end of the year.

Tables 14 and 15: Indicators of use of various cashless payment instruments

The objective of these tables is to estimate the volume and value of payment instruments used in the country. As a rule, figures concerning only a sample of banks or customers are projected to figures covering the whole volume and value of payment instruments used in the country.

"Payment" is defined in the Blue Book as the "satisfaction and discharge of an obligation by the debtor's irrevocable provision of an unconditional claim on a third party acceptable to the creditor". This definition excludes any funds transfer in which the originator and the beneficiary are the same institution or

individual. Therefore, any instrument which is used by banks' customers to obtain cash should not be counted (e.g. cheques used to obtain cash, or ATM withdrawals - although these operations might be included in Tables 8 and 9, whose focus is different). If possible, transfers to and from accounts held under the same name - either with the same institution (e.g. from a cheque account to a savings account), or between two institutions - are excluded.

Strictly speaking, "cashless" means without the involvement of cash. Such a narrow definition would exclude those money (postal) orders, which involve cash at one or both ends of the transaction, as well as the majority of travellers' cheques, which are often paid in cash. It is not realistic to use such a narrow definition because it is very doubtful whether available statistics would permit a breakdown of the number of money orders or travellers' cheques according to the way they are paid for or settled. Therefore, all payment instruments which involve cashless interbank settlement are included in the statistics.

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

In the case of cross-border payments, there is a need to avoid double-counting (i.e. in the country of the originator and in the country of the beneficiary). Since comparisons are likely to be made with total population, number of cardholders, etc., cross-border cashless payments are counted in the country of the originator.

Although payments made using retailer cards or prepaid cards should theoretically be included with cashless payments, data concerning these instruments are rarely available. EU central banks with information on these fields may include such payments under card payments, but should clearly identify them as sub-items of card payments.

According to the above principles, the following guidelines are followed:

- ◆ no distinction is made between payments in foreign and domestic currencies;
- ◆ no distinction is made between interbank items (bank A to bank B), inter-branch items (bank A branch to another bank A branch), or intra-branch items (bank A customer to another bank A customer at the same branch): all are included in the statistics;
- ◆ transfers to and from the account-holding institution and its customers (e.g. interest or fee payments) are excluded but, where available, are mentioned in a footnote;
- ◆ commercial bills are included if funds transfers can be made on the basis of these, without using another medium;
- ◆ funds transfers used to settle payment card balances are included (payment between the issuer and the user);
- ◆ travellers' cheques, eurocheques and bankers' drafts are included under cheques;
- ◆ money orders are included under credit transfers (if the volume is significant they could constitute a sub-item).

Tables 16 and 17: S.W.I.F.T. tables

These figures are provided by S.W.I.F.T.

Annex 2

Glossary

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): an 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 online with real-time access to an authorisation database or offline.

Back-to-back transaction: a chain of securities transactions among three or more counterparties involving the purchase and sale of a single security, for settlement on a single date. The most simple back-to-back trade is a pair of transactions in which one party agrees to purchase securities from a second party and then agrees to sell them to a third party.

Bank draft: 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.

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.

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 funds transfer system: see retail funds 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: a risk management arrangement whereby limits are placed on the positions that participants in an interbank funds transfer system can incur during the business day; they may be set by each individual participant or by the body governing the transfer system; they can be set in multilateral net, bilateral net or (less commonly) gross terms and can be either a credit cap or a debit cap; for example, bilateral net credit caps, set by an individual participant, will constitute a limit on the credit exposure that that participant will accept vis-à-vis each other participant; in contrast, sender net debit caps, which may for example be set by the governing body of the clearing system based on a particular formula, limit the aggregate value of transfers that an individual participant may send to all other participants over and above its incoming transfers. 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 card, travel and entertainment card.

Cash card: a 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: an electro-mechanical device that permits the withdrawal, typically using machine-readable plastic cards, of banknotes (currency) and, in some cases, coins. See also automated teller machine (ATM).

Cashier's cheque: see bank draft.

Central bank liquidity facility: a standing credit facility that can be used 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 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), of traditional rediscounting of bills or of repurchase agreements.

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.

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).

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. Cheques are 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: 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 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. 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.

Close-out netting: a special form of netting which occurs following some predefined event such as default. Close-out netting is intended to reduce exposures on open contracts if one party meets certain conditions specified by the contract (e.g. becomes subject to insolvency procedures) before the settlement date (also referred to as default netting, open contract netting or replacement contract netting).

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 question the trade.

Correspondent banking: an arrangement under which one bank provides payment and other services to another bank. Payments through correspondents are often executed through reciprocal accounts (so-called nostro and loro accounts), to which standing credit lines may be attached. Correspondent banking services are primarily provided across international boundaries but are also known as agency relationships in some domestic contexts. A loro account is the term used by a correspondent to describe an account held on behalf of a foreign bank; the foreign bank would in turn regard this account as its nostro account.

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

Credit caps: see caps.

Credit card: a card indicating that the holder has been granted a line of credit. It enables the holder to make purchases and/or withdraw 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 its 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 settlement 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 funds transfer system through which credit transfer (or giro) orders and the related information and funds may be transmitted for the purpose of executing credit transfers (or bank/postal giros).

CSD: see central securities depository.

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. Daylight credit may be extended by central banks to even out mismatches in payments settlements. 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: a card enabling the holder to have purchases directly charged to funds on an account at a deposit-taking institution (this 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.

Debt book-entry system: a computerised system for the issue and registration of debt securities in book-entry form. See also book-entry system, share book-entry system.

Default: the 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: a card issued by banks indicating that the holder may charge an account up to an authorised limit. It enables purchases to be made 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: the 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.

DVP schemes as defined by the G-10 group: In model 1, transfer instructions for both securities and funds are settled on a trade-by-trade basis, with final transfer of the securities from the seller to the buyer (delivery) occurring at the same time as final transfer of the funds from the buyer to the seller (payment). In model 2, securities transfer instructions are settled on a gross basis with final transfer of securities from the seller to the buyer (delivery) occurring throughout the processing cycle, but funds transfer instructions are settled on a net basis, with final transfer of funds from the buyer to the seller (payment) occurring at the end of the processing cycle. In model 3, transfer instructions for both securities and funds are settled on a net basis, with final transfers of both securities and funds occurring at the end of the processing cycle.

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

Depository: an agent with the primary role of recording securities either physically or electronically and keeping records of the ownership of these securities.

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

Direct participant in an IFTS: a participant in an Interbank Funds Transfer System (IFTS) who is responsible to the settlement agent (or to all other direct participants) for the settlement of its own payments, those of its customers, and those of the indirect participants on whose behalf it is settling.

Discharge: the 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 the bearer a specified sum, either on demand (sight draft) or on a specified date (time draft). See bank draft, bill of exchange, cheque.

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.

Electronic purse: a reloadable multi-purpose prepaid card which may be used for small retail or other payments instead of coins. See multi-purpose prepaid card.

End-of-day gross settlement systems: funds transfer systems in which payment orders are received one by one by the settlement agent during the business day, but in which the final settlement takes place at the end of the day on a one-by-one or aggregate gross basis. This definition also applies to gross settlement systems in which payments are settled in real time but remain revocable until the end of the day.

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: a 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: a 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.

Foreign exchange settlement risk: the risk that one party to a foreign exchange transaction will pay the currency it sold but not receive the currency it bought. This is also called cross-currency settlement risk or principal risk; it is also referred to as Herstatt risk, although this is an inappropriate term given the differing circumstances in which this risk has materialised.

Funds Transfer System (FTS): a formal arrangement, based on private contract or statute law, with multiple membership, common rules and standardised arrangements, for the transmission and settlement of money obligations arising between the members. See Interbank Funds Transfer System.

Fungibility: a concept that characterises the method of holding securities by a CSD or other financial intermediary in which each of a number of issues of physical or dematerialised securities are held in separate fungible pools. No owner has the right to any particular physical or dematerialised security in a particular pool, but has a right to such an amount of physical or dematerialised securities as shown in its account with a CSD or other financial intermediary.

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 net settlement system, real-time gross settlement.

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.

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

Imprinter: a mechanical device used 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 to be signed by the customer on which the name and card number of the customer are imprinted. See also imprinter.

Indirect participant in an IFTS: a participant in an IFTS which does not, for whatever reason, settle its own payments on a gross or net payment basis and, therefore, settles them through a direct participant. See direct participant in an IFTS.

Interbank Funds Transfer System (IFTS): a funds transfer system in which most (or all) direct participants are credit institutions. See Funds Transfer System (FTS).

Interlinking: within the TARGET system, Interlinking provides common procedures and the infrastructure which allow payment orders to move from one domestic RTGS system to another domestic RTGS system. See TARGET system.

International central securities depository (ICSD): a central securities depository which clears and settles international securities or cross-border transactions in domestic securities. At the moment, there are two ICSD located in EU countries, Cedel and Euroclear.

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; or a bank that approves a letter of credit. Issuer is sometimes used to refer to a financial institution that issues credit or debit cards.

Large-value funds transfer system: a 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. Although, as a rule, no minimum value is set for the payments they carry, the average size of payments passed through such systems is usually relatively large. Large-value funds transfer systems are sometimes known as wholesale funds transfer systems.

Large-value payments: payments, generally of very large amounts, which are mainly exchanged between banks or between participants in the financial markets and usually require urgent and timely settlement.

Legal ownership: the 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 a payment on behalf of a customer in accordance with specified conditions. Letters of credit are frequently used in international trade to make funds available in a foreign location.

Limited-purpose prepaid card: a prepaid card which can be used for a limited number of well-defined purposes. Its use is often restricted to a number of well-identified points of sale within a well-identified location (e.g. a building, corporation or university). In the case of single-purpose prepaid cards, the card issuer and the service provider may be identical (e.g. cards used in public telephones). See prepaid card.

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: the term margin has at least two meanings. In the futures/commodity markets, a margin is a good faith deposit (of money, securities or other financial instruments) required by the futures clearing system to ensure performance. In the equities markets, a 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.

Minimum standards of the Lamfalussy report (Lamfalussy standards): the six minimum standards for the design and operation of cross-border and multi-currency netting schemes or systems.

- I Netting systems should have a well-founded legal basis under all relevant jurisdictions.
- II Netting scheme participants should have a clear understanding of the impact of the particular scheme on each of the financial risks affected by the netting process.

- III Multilateral netting systems should have clearly defined procedures for the management of credit risks and liquidity risks which specify the respective responsibilities of the netting provider and the participants. These procedures should also ensure that all parties have both the incentives and the capabilities to manage and contain each of the risks they bear and that limits are placed on the maximum level of credit exposure that can be produced by each participant.
- IV Multilateral netting systems should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single net debit position.
- V Multilateral netting systems should have objective and publicly disclosed criteria for admission which permit fair and open access.
- VI All netting schemes should ensure the operational reliability of technical systems and the availability of backup facilities capable of completing daily processing requirements.

Money order: an instrument used to remit money to the named payee, often used by persons who do not have a cheque account relationship with a financial institution, to pay bills or 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 direct participant in an IFTS, multilateral net settlement position, multilateral netting.

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.

Multi-purpose prepaid card: a prepaid card which can be used at the outlets of several service providers for a wide range of purposes, which has the potential to be used on a national or international scale but may sometimes be restricted to a certain area. See electronic purse, prepaid card.

Net credit or net 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 the 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 net 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 funds transfer system whose settlement operations are completed on a bilateral or multilateral net basis.

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 netting, multilateral netting, novation, position netting, substitution.

Netting by novation: netting by novation agreements provide for individual forward-value contractual commitments (e.g. foreign exchange contracts) to be discharged at the time of their confirmation and replaced by new obligations forming part of a single agreement. Amounts due under a discharged contract will be added to running balances due between the parties in each currency at each future value date.

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

Novation: the 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 those 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. Obligation 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.

Offline: in the context of payment and settlement systems, this 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 a 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 online.

Online: in the context of payment and settlement systems, this 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 a transfer processing system on a computer database such that the user has direct access to the data (frequently in real time) through input/output devices such as terminals. See offline.

Open offer netting: "netting by open offer" describes a contractual means by which a third party, such as a clearing house, becomes party to a transaction agreed by two separate entities. The third party extends an "open offer" to those entities, with the effect that if they agree the terms of a transaction which satisfies certain pre-agreed conditions, the third party automatically and immediately becomes interposed in that transaction. Two separate, equal and opposite contractual obligations are created, between the clearing house and one party, and between the clearing house and the other entity. If all pre-agreed conditions are met, at no stage does a direct contractual obligation exist between the two entities.

Operational safe custody accounts: securities accounts run by the central bank in which credit institutions can place securities deemed suitable for the backing of central bank operations. The securities held on these accounts are finally deposited with the CSD under the name of the NCB, so that the transfer into a safe custody account results in a transfer between the bank's and the NCB's account with the CSD. The securities deposited with the NCB are generally pledged to the NCB as collateral for (interest-bearing) overnight and (interest-free) intraday lombard loans. They can also be used for open market transactions (repos) based on a general authorisation given to the NCB to acquire securities.

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.

Oversight of payment systems: a central bank task, principally intended to promote the smooth functioning of payment systems and to protect the financial system from possible “domino effects” which may occur when one or more participants in the payment system incur credit or liquidity problems. Payment systems oversight aims at a given system (e.g. a funds transfer system) rather than individual participants.

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

Participant in/Member of an FTS: a party which 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 that transfer system. See direct participant in an IFTS, indirect participant in an IFTS.

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 a 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 facilitate the circulation of money.

Payment versus payment (PVP): a mechanism in a foreign exchange settlement system which ensures that a final transfer of one currency occurs if and only if a final transfer of the other currency or currencies takes place.

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 also designed 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. This is also referred to as payment netting in the case of payment instructions.

Prepaid card: a card which contains real purchasing power, for which the customer has paid in advance to the issuer of the card. See limited-purpose prepaid card and multi-purpose prepaid card.

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. See credit risk.

Provisional transfer: a conditional transfer in which one or more parties retain the right by law or agreement to revoke 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 on 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) system: 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 immediately after the time it is initiated.

Receiver finality: an 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 access to a CSD: the facility in a securities settlement system (SSS) in one country ("home country") to become a direct participant in a CSD established in another country ("host country") and, for that purpose, to have a securities account in its own name with the CSD in the host country. See securities settlement system.

Remote access to an IFTS: the facility for a credit institution established in one country ("home country") to become a direct participant in an interbank funds transfer system (IFTS) established in another country ("host country") and, for that purpose, to have a settlement account in its own name with the central bank in the host country, if necessary, without having established a branch in the host country.

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: a 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: 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.

Repurchase agreement (repo): a sale and repurchase agreement. An arrangement by which a person with a long securities position sells them to a counterparty while simultaneously obtaining the right and obligation to repurchase them at a specific price on a future date or on demand. Such an agreement is used by persons with a long position in securities, but short on cash with which to obtain financing - similar to a secured borrowing, except that ownership of securities is not retained.

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

Retail payments: this term describes all payments which are not covered in the definition of large-value payments. Retail payments are mainly consumer payments of relatively low value and low urgency.

Retailer 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.

Reverse repo: a purchase and resale agreement. An arrangement by which a person with a short securities position purchases them from a counterparty while simultaneously obtaining the right and obligation to resell them at a specific price on a future date or on demand. Such an agreement is used by persons with a short position in securities, but a long position on cash to obtain securities - similar to secured lending, except that ownership of securities is transferred.

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.

Securities settlement system (SSS): a system which permits the transfer of securities: either free of payment (free delivery), for example in the case of pledge; or against payment. Settlement of securities occurs on securities deposit accounts held with the CSD (both private CSDs or an NCB acting as a CSD) or with the central bank (safe custody operational accounts). In the latter case, the central bank acts as the intermediate custodian of the securities. The final custodian is normally a CSD. Settlement of cash occurs in an Interbank Funds Transfer System (IFTS), through a settlement agent.

Sender finality: an 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 final settlement, gross settlement system, net settlement, net settlement system.

Settlement agent: an institution that manages the settlement process (e.g. the determination of settlement positions, the monitoring of 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 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.

Settlement risk: a 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 used to facilitate the settlement of transfers of funds or financial instruments.

Share book-entry system: a computerised system for the issue and registration of equity securities in book-entry form. See also book-entry system, debt book-entry system.

Standing order: an instruction from a customer to a 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 co-operative 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.

TARGET (Trans-European Automated Real-time Gross settlement Express Transfer) system: the TARGET system is defined as a payment system composed of one RTGS system in each of the countries which participate in Stage Three of EMU and the European Central Bank (ECB) payment mechanism. RTGS systems of non-participating countries may also be connected, provided that they are able to process the euro alongside their national currency. The domestic RTGS systems and the ECB payment mechanism are interconnected according to common procedures ("Interlinking") to allow cross-border transfers throughout the European Union to move from one system to another system. See Interlinking.

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 participant in an IFTS and indirect participant in an IFTS.

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

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

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.

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) the 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 funds transfer systems and exchange-for-value systems.

Travel and entertainment card: a card issued by non-banks indicating that the holder has been granted a line of credit. It enables the holder 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: this term is 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 an extreme case, 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.

Zero-hour clause: a provision in the bankruptcy laws of some countries which may retroactively render transactions of a closed institution ineffective after 0.00 a.m. on the date the institution is ordered to be closed.