## BANK FOR INTERNATIONAL SETTLEMENTS

## STATISTICS ON PAYMENT SYSTEMS IN THE GROUP OF TEN COUNTRIES

figures for 1995

Prepared by the Committee on Payment and Settlement Systems of the central banks of the Group of Ten countries

Basle

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Table 1 **Basic statistical data** 

	1991	1992	1993	1994	1995
Population (millions)	10.02	10.07	10.10	10.13	10.16
GDP (BEF billions)	6,723	7,034	7,137	7,626	7,923
GDP per capita (BEF)	670,958	698,510	706,634	752,813	779,823
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	31.27 34.18	33.18 32.12	36.11 34.55	31.84 33.45	29.44 29.49

Table 2

Settlement media used by non-banks

(at year-end, not seasonally adjusted, in billions of Belgian francs)

	1991	1992	1993	1994	1995
Notes and coin	417.0	414.1	424.7	396.3	416.2
Transferable deposits <sup>1</sup>	917.6	902.0	1,008.2	1,066.9	1,111.3
Other	•			•	•
Narrow money supply	1,334.6	1,316.1	1,432.9	1,463.2	1,527.5
Memorandum item:					
Broad money supply	5,690.8	6,061.2	7,110.9	6,621.4	6,615.1

<sup>&</sup>lt;sup>1</sup> Sight deposits in BEF of companies and private persons held with the Postcheque Office and credit institutions.

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Table 3 **Settlement media used by banks**(in billions of Belgian francs)

	1991	1992	1993	1994	1995
Reserve balances held at central bank <sup>1</sup>	4.05	2.09	1.41	2.05	1.86
Transferable deposits at other institutions <sup>2</sup>	•	199.5	103.5	113.1	128.9
Other	•				
Memorandum items:					
Required reserves	•	•	•		
Institutions' borrowing from central bank <sup>1,3</sup>	3.31	3.74	9.01	3.13	4.13

 $<sup>^1</sup>$  Average of end-of-month figures.  $^2$  Payment media held by Belgian credit institutions with other credit institutions (call money and sight accounts, BEF and foreign currencies, in Belgium and abroad).  $^3$  Current account advances.

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Table 4
Banknotes and coin
(at year-end, not seasonally adjusted, in billions of Belgian francs)

	1991	1992	1993	1994	1995
Total banknotes and coin issued	450.1	448.1	459.3	431.4	465.9
Denominations:					
Notes:					
10,000 francs <sup>1</sup>		15.3 279.1 109.1 12.6 14.1	80.6 220.8 111.9 12.9 14.4	182.6 6.1 100.3 95.6 13.1 14.5	206.1 0.8 124.2 86.2 13.5 15.0
Coin:					
500 francs         250 francs         50 francs         20 francs         5 francs         1 franc         0.5 francs	6.5 6.6 2.4	0.2 7.1 6.7 2.5 1.1 0.3	0.2 7.6 6.8 2.6 1.2 0.3	0.2 0.0 7.8 6.9 2.7 1.3 0.3	0.2 0.1 8.1 7.2 2.8 1.4 0.3
Banknotes and coin held by credit institutions	33.1	34.0	34.6	35.1	49.7
Total banknotes and coin outside credit institutions	417.0	414.1	424.7	396.3	416.2

<sup>&</sup>lt;sup>1</sup> Notes with a denomination of BEF 10,000 have only been issued since 11th December 1992. <sup>2</sup> The NBB started withdrawing the BEF 5,000 note, which ceased to be legal tender on 1st December 1994. <sup>3</sup> A new banknote with a denomination of BEF 2,000 was issued on 22nd April 1994.

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Table 5
Institutional framework
(at end-1995)

Categories	Number of institutions	Number of branches	Number of accounts (thousands)	Value of accounts (BEF billions)
Central bank	1	18 <sup>1</sup>	•	0.1
Credit institutions	145	7,749 <sup>2</sup>	10,754	1,036.6
Postcheque	1	1,707	1,201	74.6
Branches of banks incorporated under foreign law	40 24	59 •		

 $<sup>^{1}</sup>$  Five of the 23 branches became representation offices, in which no transactions with credit institutions take place.  $^{2}$  Non-full-size branches excluded.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1991	1992	1993	1994	1995
Cash dispensers and ATMs: <sup>1</sup>					
Number of networks	3	3	15	15	15
Number of machines	1,052	1,096	2,819	3,170	3,654
Volume of transactions (millions)	80.79	88.33	115.65	120.96	144.32
Value of transactions (BEF billions)	296.71	331.67	458.18	482.08	584.03
EFTPOS:					
Number of networks <sup>2</sup>	6	6	6	6	6
Number of terminals	32,199	40,627	52,984	63,765	72,892
Volume of transactions (millions) <sup>3</sup>	104.06	131.44	157.81	181.96	211.45
Value of transactions (BEF billions) <sup>3</sup>	203.01	276.85	344.43	412.67	482.91

 $<sup>^{1}</sup>$  As from 1993 the ATMs and the transactions at ATMs which are reserved exclusively for the use of a particular bank's customers are added.  $^{2}$  Six companies have proper POS clients, but the transactions pass through one network, the Banksys network.  $^{3}$  Figures include payments with credit cards at POS terminals.

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Table 7

Number of payment cards in circulation
(in thousands)

1991 1992 1993 1994 1995 Cards with a cash function ...... 6,857 7,792 8,316 8,912 9,461 Cards with a debit/credit 7,907 8,431 8,912 6,967 9,461 function<sup>1</sup> ..... of which: cards with a debit function 5,466 6,101 6,434 6,780 7,190 cards with a credit 1,997 *function*<sup>2</sup> ..... 1,501 1,806 2,132 2,271 Cards with a cheque guarantee function ..... 4,653 4,598 4,856 4,660 4,645 Retailer cards ..... 913 1,002 767 1,089 1,221

<sup>&</sup>lt;sup>1</sup> Overlaps with the cards with a cash function. <sup>2</sup> Most cards with a credit function are of the delayed debit type.

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Table 8

Payment instructions handled by selected payment systems: volume of transactions

(in millions)

	1991	1992	1993	1994	1995
Clearing House	27.28	24.67	22.52	15.88	14.45
Securities clearing					
balances <sup>1</sup>	•	•	•	•	•
Postal drafts	2.63	2.21	2.19	3.76	3.72
FX transactions	0.03	•	•	•	•
S.W.I.F.TCLR system	•	0.46	0.94	1.15	1.37
Debits	6.22	5.55	4.82	6.25	5.11
Ordinary credits	3.88	3.35	2.46	3.01	2.67
Bilaterally exchanged					
credits	7.61	7.65	7.16	1.712	$1.58^2$
<i>Provinces</i> <sup>3</sup>	6.90	5.45	4.95		
Others	0.01	0.00	0.00	•	•
CEC	652.12	695.20	740.25	784.33	826.22
Direct debits	50.76	56.53	61.94	66.43	71.95
of which:					
ordinary direct debits	49.27	54.71	59.89	64.07	69.37
refunds	0.50	0.49	0.51	0.52	0.63
unpaid direct debits	0.98	1.33	1.54	1.84	1.95
Other debit operations	275.35	290.43	306.33	322.14	337.06
of which:					
truncated cheques	110.35	98.85	91.35	84.76	77.47
ATMs and POS	164.92	191.31	214.61	237.02	259.21
unpaid cheques <sup>4</sup>	0.08	0.27	0.37	0.36	0.38
Credit transfers	325.94	348.08	371.21	394.64	416.03
of which:					
ordinary credit transfers counterparty postal	277.70	294.68	308.10	322.90	337.02
drafts	3.77	3.52	3.34	2.97	2.70
counterparty ATM-POS	23.82	29.97	40.09	49.26	57.01
inpayment transfers	20.65	19.91	19.68	19.51	19.30
Large-value credit transfers	0.07	0.16	0.77	1.12	1.17

<sup>&</sup>lt;sup>1</sup> Negligible quantity. <sup>2</sup> The only member still working with this system uses the services of the CEC to a much greater extent. <sup>3</sup> Since 1994, the volume of transactions in the provinces has been split up and classified in the relevant groups. <sup>4</sup> The application started in June 1991.

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Table 9

Payment instructions handled by selected payment systems: value of transactions

(in billions of Belgian francs)

	1991	1992	1993	1994	1995
Clearing House	187,000	203,067	298,952	337,567	334,353
Securities clearing					
balances <sup>1</sup>	5,255	5,531	8,651	11,010	12,522
Postal drafts	39	43	42	67	40
FX transactions	11,841			•	
S.W.I.F.TCLR system	•	21,970	71,951	104,193	119,679
Debits	18,465	18,482	18,632	16,862	14,887
Ordinary credits	137,951	149,278	191,255	205,305	187,110
Bilaterally exchanged					
credits	295	250	234	130	115
Provinces <sup>1</sup>	5,833	6,518	8,174		
Others	7,321	995	13	•	•
CEC	12,334	15,928	21,827	24,512	26,588
Direct debits	299	341	367	407	440
of which:					
ordinary direct debits	286	324	350	387	419
refunds	4	5	5	5	6
unpaid direct debits	9	12	12	15	15
Other debit operations	1,627	1,699	1,787	1,830	1,859
of which:					
truncated cheques	1,170	1,158	1,166	1,148	1,123
ATMs and POS	455	541	610	671	724
unpaid cheques <sup>2</sup>	2	7	11	11	12
Credit transfers	8,298	9,322	9,733	10,255	10,373
of which:					
ordinary credits	7,667	8,606	8,937	9,386	9,438
counterparty postal drafts	46	44	43	39	37
counterparty ATM-POS	446	532	599	663	719
inpayment transfers	139	140	154	167	179
Large-value credit transfers	2,111	4,566	9,940	12,020	13,916

 $<sup>^{1}</sup>$  Since 1994, the value of transactions in the provinces has been split up and classified in the relevant groups.  $^{2}$  The application started in June 1991.

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Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

	1991	1992	1993	1994	1995
NBB clearing:	52.240	00.407	1.47.100	100.450	100 600
Government securities CIK:	53,349	80,287	147,180	188,258	198,608
Shares (millions) <sup>1</sup>	260.8	253.1	566.0	664.2	485.2

<sup>&</sup>lt;sup>1</sup> The volume of shares refers to the number of shares and not to the number of transactions.

Table 11

Transfer instructions handled by securities settlement systems:
value of transactions

(in billions of Belgian francs)

	1991	1992	1993	1994	1995
Securities Clearing System of the NBB:					
Government securities	10,989	18,261	35,805	66,148	85,050
CIK:					
Shares	290.0	315.6	494.4	553.8	546.7

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

(in millions)

Instruments	1991	1992	1993	1994	1995
Cheques issued <sup>1</sup>	193.8	174.2	139.1	124.1	117.1
Payments by debit and credit cards <sup>2</sup>	119.3	144.7	169.2	190.9	218.1
Paper-based credit transfers	5.2	4.6	3.4	3.0	2.7
Paperless credit transfers <sup>3</sup>	506.6	524.0	586.9	642.7	662.9
Direct debits	73.2	81.3	88.5	100.1	104.5
Other	٠	٠	•	•	
Total	898.1	928.8	987.1	1,060.8	1,105.3

 $<sup>^{1}</sup>$  Postal drafts included; until 1992 the figures include partly data relating to cheques used for cash withdrawals.  $^{2}$  Payments with retailers' cards included.  $^{3}$  In-payment transfers included.

Table 13

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

(in billions of Belgian francs)

Instruments	1991	1992	1993	1994	1995
Cheques issued <sup>1</sup>	9,937	12,460	13,246	13,693	12,287
Payments by debit and credit cards <sup>2</sup>	262	331	388	443	508
Paper-based credit transfers	141,592	153,511	196,896	205,305	187,110
Paperless credit transfers <sup>3</sup>	32,808	35,284	58,709	73,984	87,037
Direct debits	430	485	787	885	979
Other	•	•	•	•	•
Total	185,029	202,071	270,026	294,310	287,921

<sup>&</sup>lt;sup>1</sup> Postal drafts included; until 1992 the figures include partly data relating to cheques used for cash withdrawals. <sup>2</sup> Payments with retailers' cards included. <sup>3</sup> In-payment transfers included.

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Table 14

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

	1991	1992	1993	1994	1995
Members	36	35	34	34	33
of which: live	33	35	33	34	32
Sub-members <sup>1</sup>	35	39	35	37	38
of which: live	28	32	33	36	37
Participants <sup>2</sup>	1	2	2	3	5
of which: live	1	1	2	3	3
Total users	66	76	71	74	76
of which: live	62	68	68	73	72
Memorandum items:					
Total S.W.I.F.T.:					
members	1,963	2,074	2,244	2,551	2,693
sub-members	1,607	1,738	1,887	2,097	2,259
participantsusers	78 3,648	91 3,903	125 4,256	218 4,866	277 5,229

 $<sup>^{1}</sup>$  Domestic users sponsored by members abroad.  $^{2}$  Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

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

	1991	1992	1993	1994	1995
Total messages sent	16,567,543	18,097,152	19,828,726	21,233,594	23,796,106
of which:					
category I <sup>1</sup> category II <sup>2</sup>	5,347,697 4,698,968	5,751,632 5,030,069	6,145,021 5,233,779	6,331,292 5,350,057	6,660,281 5,606,480
Total messages received	13,868,647	15,086,640	17,234,167	18,910,023	21,003,109
of which:					
category I <sup>1</sup> category II <sup>2</sup>		5,171,658 3,596,967	5,556,991 4,073,542	5,835,044 4,198,073	8,197,728 4,457,184
Domestic traffic <sup>3</sup>	2,524,657	2,920,427	3,604,238	3,907,203	4,452,493
Memorandum item:					
Global S.W.I.F.T. traffic	365,159,291	405,540,962	457,218,200	518,097,873	603,575,374

 $<sup>^1</sup>$  Category I: customer (funds) transfers.  $^2$  Category II: bank (funds) transfers.  $^3$  Messages sent to/received from domestic users.

Source: S.W.I.F.T.

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Table 1 **Basic statistical data** 

	1991	1992	1993	1994	1995
Population (millions):					
year-endaverage	28.2 28.0	28.6 28.5	29.0 28.9	29.3 29.2	29.7 29.6
GDP (CAD billions)	681.0	696.5	724.5	762.8	781.6
GDP per capita	24,149	24,438	25,069	26,123	26,405
Exchange rate (domestic currency vis-à-vis USD):					
year-end <sup>1</sup> average <sup>2</sup>	1.1555 1.1458	1.2709 1.2083	1.3217 1.2898	1.4018 1.3659	1.3640 1.3726

<sup>&</sup>lt;sup>1</sup> Closing spot rate for the year. <sup>2</sup> Average noon spot rate for the year.

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in millions of Canadian dollars)

	1991	1992	1993	1994	1995
Notes and coin	21,051	22,790	24,400	26,152	26,835
Transferable deposits <sup>1</sup>	103,950	108,626	117,555	122,599	135,072
Narrow money supply (M <sub>1</sub> )	45,622	48,433	55,428	59,112	62,674
Memorandum item:					
Broad money supply (M <sub>2</sub> +)	534,989	559,320	578,129	591,999	618,447

<sup>&</sup>lt;sup>1</sup> Canadian dollar deposit liabilities consist of demand deposits and other chequable deposits.

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Table 3 **Settlement media used by credit/deposit-taking institutions**(at year-end, in millions of Canadian dollars)

	1991	1992	1993	1994	1995
Reserve or settlement balances held at central bank	1,433	1,201	1,295	559	359
Reserve or settlement balances held at other deposit-taking institutions <sup>1</sup>	118	112	123	.3	.3
Memorandum items:  Required reserves	5,466	5,225	4,981	.3	.3
Institutions' borrowing from central bank <sup>2</sup>	298	155	214	312	478

<sup>&</sup>lt;sup>1</sup> Statutory reserves held by chartered banks at other chartered banks under the terms of reserve-holding agreements. Excludes settlement balances held by non-bank Indirect Clearers at their clearing agents. <sup>2</sup> Advances to members of the Canadian Payments Association. <sup>3</sup> The statutory requirement for chartered banks to hold reserves against certain of their deposit liabilities was phased out over a two-year period ended July 1994.

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Table 4

Banknotes and coin

(at year-end, not seasonally adjusted, in thousands of Canadian dollars)

	1991	1992	1993	1994	1995
Total banknotes and coin outstanding	26,766,713	27,978,336	29,697,901	30,789,151	31,306,723
Coinage	2,285,284	2,369,102	2,461,232	2,460,499	2,529,069
Denomination of banknotes: <sup>1</sup>					
1,000 dollars	1,512,989	1,764,341	2,080,675	2,344,424	2,510,111
500 dollars	23	23	23	23	23
100 dollars	8,470,370	9,446,389	10,395,069	11,121,838	11,431,498
50 dollars	3,649,557	3,768,243	3,862,611	3,897,707	3,844,013
25 dollars	46	46	46	46	46
20 dollars	8,199,334	8,117,219	8,433,602	8,512,078	8,515,415
10 dollars	1,158,192	1,104,404	1,075,244	1,056,548	1,043,990
5 dollars	891,388	798,979	767,715	762,274	765,042
2 dollars	418,493	430,334	443,765	456,853	491,594
1 dollar	168,164	166,383	165,046	163,988	163,050
Other	12,873	12,873	12,873	12,873	12,872
Banknotes held by chartered banks	5,389,586	4,640,831	4,713,372	4,360,619	4,092,536
Total banknotes outside chartered banks	19,091,843	20,968,403	22,523,297	23,968,033	24,672,247

 $<sup>^1</sup>$  Value of all notes outstanding at the end of the year.  $^2$  Value of notes held by chartered banks. Excludes value of notes held by non-bank deposit-taking institutions.

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Table 5
Institutional framework
(at end-1995)

Categories	Number of institutions	Number of branches	Number of transferable deposit accounts (millions)	Value of transferable deposit accounts <sup>1</sup> (CAD millions)
Central bank	1	9	•	•
Chartered banks	62	8,074		107,740
Local credit unions and caisses populaires	2,448	3,853	•	16,515
Trust and loan companies	41 <sup>2</sup>	1,585	•	8,374
Governmental savings institutions	$2^3$	169	•	2,507
Post Office	•		•	•
Memorandum item:				
Branches of foreign deposit- taking institutions				

 $<sup>^1</sup>$  Household sector only.  $^2$  Only a few operate nationwide. Figure excludes those trust and loan companies that do not accept transferable deposits.  $^3$  Operate only in Alberta or Ontario.

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Table 6
Cash dispensers, ATMs and EFTPOS terminals<sup>1</sup>

	1991	1992	1993	1994	1995
Cash dispensers and ATMs:					
Number of networks  Number of machines <sup>2</sup>	40	40	40	40	40
Total	13,175	14,596	16,078	16,927	17,670
of which:					
Owned by member institutions of the Canadian Payments					
Association Owned or operated by other	13,154	14,576	16,058	16,927	17,670
entities	21	20	20	0	0
Volume of transactions (millions):					
Total	941.5	1,024.8	1,084.8	1,197.3	1,364.1
of which:					
Withdrawals	689.6	757.4	796.4	877.5	978.9
Deposits	122.4	124.0	130.5	143.6	174.4
Bill payments	28.4	32.6	36.1	41.7	50.3
Inter-account transfers	44.3	50.6	56.8	65.6	76.3
Balance inquiries	56.8	60.2	65.0	68.9	84.2
Value of transactions					
(CAD billions):					
Withdrawals	44.8	50.7	55.0	61.4	68.5
Deposits	•	•	•	•	•
Bill payments	2.1	2.4	2.7	3.1	3.8
Inter-account transfers	•	•	•	•	•
Balance inquiries	•	•	•	•	•
EFTPOS:					
Number of networks	11	11	10	11	11
Number of terminals	13,300	29,600	61,900	119,733	189,898
Volume of transactions					
(millions)Value of transactions	10.3	30.3	74.0	185.2	393.8
(CAD billions)	0.5	1.6	3.7	9.4	18.8

 $<sup>^1</sup>$  All figures, other than those for the number of cash dispensers and ATMs owned by member institutions of the Canadian Payments Association, are estimates.  $^2$  As at 31st January of the following year.

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Table 7

Number of payment cards in circulation

(at year-end, in millions1)

	1991	1992	1993	1994	1995
Debit cards issued by deposit-taking institutions	17.5	18.5	22.5	24.0	25.9
Credit cards issued by deposit-taking institutions <sup>2,3</sup>	24.3	24.4	25.0	27.6	28.8
Cheque guarantee cards issued by deposit-taking institutions					
Cheque guarantee cards issued by retailers or by third parties					
Credit cards issued by retailers or by third parties	120.0	125.0	125.0	125.0	125.0

<sup>&</sup>lt;sup>1</sup> All figures, other than those for credit cards issued by deposit-taking institutions, are estimates. <sup>2</sup> As at 31st October.

<sup>&</sup>lt;sup>3</sup> Between 50 and 60% of the credit cards issued by deposit-taking institutions can also be used by eligible cardholders to obtain cash from either their deposit or credit card accounts at automated banking machines.

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 $\label{eq:Table 8} \textbf{Payment instructions handled by selected payment systems:} \\ \textbf{volume of transactions}^{\scriptscriptstyle 1}$ 

(in millions)

	1991	1992	1993	1994	1995
National clearing and settlement system:					
Small cheques  Large cheques (over	1,798.0	1,758.4	1,737.8	1,665.3	1,596.7
CAD 50,000)	7.5	6.8	7.5	6.9	6.2
Unqualified <sup>2</sup>	12.3	12.2	12.8	13.5	15.0
Tape clearings <sup>3</sup>	5.8	3.2	0.0	0.0	0.0
EDI	•	$0.0^{4}$	$0.0^{4}$	$0.0^{4}$	$0.0^{4}$
Magnetic tape credits	87.2	98.7	127.2	169.0	211.7
Magnetic tape debits	97.2	122.1	149.0	174.7	198.3
Shared ABM networks	169.8	201.4	236.2	271.0	297.9
Point of sale	2.1	6.0	40.7	129.8	290.2
Total	2,180.0	2,209.0	2,311.1	2,430.2	2,616.0
Interbank International					
Payment System	1.6	1.8	2.1	2.2	2.3

Owing to the rounding of figures, components may not always add to the total shown. <sup>2</sup> Payment items either that have been returned principally because of insufficient funds in the payer's account or because of stop-payment orders or that do not meet the standards and specifications for MICR-encoded documents of the Canadian Payments Association. <sup>3</sup> Payment items that have had the relevant information stripped from them following sorting. The information is exchanged between Direct Clearers on magnetic tape on a bilateral basis at a limited number of Regional Settlement Points. The physical items are exchanged subsequently. <sup>4</sup> Insignificant. The volume recorded reflects the end-of-day gross settlement of EDI payment items exchanged between participating institutions.

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Table 9 **Payment instructions handled by selected payment systems:**value of transactions<sup>1</sup>

(in billions of Canadian dollars)

	1991	1992	1993	1994	1995
National clearing and					
settlement system:					
Small cheques	1,015.0	1,014.6	1,026.3	1,029.5	1,022.6
Large cheques (over					
CAD 50,000)	16,939.3	17,125.0	19,209.7	19,922.8	15,912.3
Unqualified <sup>2</sup>	39.4	18.0	26.8	14.3	14.5
Tape clearings <sup>3</sup>	6.0	3.7	0.0	0.0	0.0
EDI		0.2	2.4	4.3	22.7
Magnetic tape credits	102.6	126.4	141.9	155.1	177.8
Magnetic tape debits	24.0	31.9	37.9	44.4	55.4
Shared ABM networks	11.0	13.4	16.3	19.1	20.9
Point of sale	0.1	0.5	2.3	6.8	14.2
Total	18,137.6	18,333.8	20,463.7	21,196.3	17,240.4
Interbank International					
Payment System	7,500.0	10,100.0	12,977.4	15,896.0	15,968.0

<sup>&</sup>lt;sup>1</sup> Owing to the rounding of figures, components may not always add to the total shown. <sup>2</sup> Payment items either that have been returned principally because of insufficient funds in the payer's account or because of stop-payment orders or that do not meet the standards and specifications for MICR-encoded documents of the Canadian Payments Association. <sup>3</sup> Payment items that have had the relevant information stripped from them following sorting. The information is exchanged between Direct Clearers on magnetic tape on a bilateral basis at a limited number of Regional Settlement Points. The physical items are exchanged subsequently. <sup>4</sup> Insignificant. The volume recorded reflects the end-of-day gross settlement of EDI payment items exchanged between participating institutions.

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(for the twelve-month period ended 31st October)

	1991	1992	1993	1994	1995	1996
Number of trades/transactions reported to CDS <sup>1,2</sup> (millions)	5.4	6.7	9.9	10.6	10.0	15.0
Memorandum item:  Value of eligible securities <sup>3</sup> (CAD billions)	379	465	594	699	800	1,106

<sup>&</sup>lt;sup>1</sup> The Canadian Depository for Securities Limited. <sup>2</sup> Consists of trades reported from the Toronto Stock Exchange and the Montreal Exchange and transactions between CDS member institutions. <sup>3</sup> Par value of debt securities plus market value of equity securities on deposit at CDS as at 31st October.

- 19 - *Canada* 

Table 11

Transfer instructions handled by securities settlement systems:
value of transactions

(for the twelve-month period ended 31st October, in trillions of Canadian dollars)

	1991	1992	1993	1994	1995	1996
Value of settlement amounts (not nets) of trades <sup>1</sup>						
Total	•		15.9	20.5	21.3	39.4
of which:						
Government of Canada domestic marketable bonds Federal Government		•	13.7	17.5	19.0	26.0
Treasury Bills <sup>2</sup> other	•	•	2.2	3.0	· 2.3	11.0 2.4

<sup>&</sup>lt;sup>1</sup> Consists of trade values reported from the Toronto Stock Exchange and the Montreal Exchange and both sides of transactions between CDS member institutions. <sup>2</sup> Federal Government Treasury Bills were deposited into the DCS at the Canadian Depository for Securities between October 1995 and January 1996.

Table 12

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

(in millions; all figures are estimates)

Instruments	1991	1992	1993	1994	1995
Cheques and other paper payment instruments issued	2,188.3	2,135.5	2,109.6	2,022.7	1,941.4
Payments by credit card	926.7	959.0	1,043.7	1,167.2	1,260.0
Payments by debit card at the point of sale (EFTPOS)	10.3	30.3	74.0	185.2	393.8
Paper-based credit transfers	•	•	•	•	
Paperless credit transfers	133.0	151.0	188.8	244.5	304.4
customer initiated <sup>1</sup>	28.4	32.6	36.1	41.7	50.3
interbank/large-value direct credits	104.6	118.4	152.7	202.8	254.1
Direct debits	116.7	146.6	178.8	209.6	237.9
Total	3,375.0	3,422.4	3,594.9	3,829.2	4,137.5

<sup>&</sup>lt;sup>1</sup> Bill payments initiated at automated teller machines.

- 20 - Canada

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

(in billions of Canadian dollars; all figures are estimates)

Instruments	1991	1992	1993	1994	1995
Cheques and other paper payment instruments issued	21,599.7	21,792.0	24,315.4	25,160.0	20,339.3
Payments by credit card	62.5	66.4	73.6	84.5	91.2
Payments by debit card at the point of sale (EFTPOS)	0.5	1.6	3.7	9.4	18.8
Paper-based credit transfers	•	•			
Paperless credit transfers	125.2	154.0	173.0	189.2	217.1
customer initiated <sup>1</sup>	2.1	2.4	2.7	3.1	3.8
interbank/large-value direct credits	123.1	151.6	170.3	186.1	· 213.3
Direct debits	28.8	38.3	45.6	53.3	66.5
Total	21,816.7	22,052.3	24,611.3	25,496.4	20,732.9

<sup>&</sup>lt;sup>1</sup> Bill payments initiated at automated teller machines.

- 21 - *Canada* 

Table 14

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

	1991	1992	1993	1994	1995
Members	14	15	14	14	14
of which: live	14	13	14	14	14
Sub-members <sup>1</sup>	29	28	31	33	33
of which: live	27	27	30	33	32
Participants <sup>2</sup>	1	1	2	3	6
of which: live	1	1	1	2	5
Total users	44	44	47	50	53
of which: live	42	41	45	49	51
Memorandum items:					
Total S.W.I.F.T.:					
members	1,963	2,074	2,244	2,551	2,693
sub-members	1,607	1,738	1,887	2,097	2,259
participants	78	91	125	218	277
users	3,648	3,903	4,256	4,866	5,229

 $<sup>^{1}</sup>$  Domestic users sponsored by members abroad.  $^{2}$  Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

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

	1991	1992	1993	1994	1995
Total messages sent	8,420,902	9,200,133	9,883,583	10,960,197	12,385,962
of which:					
category I <sup>1</sup>	1,721,023	1,971,465	2,334,799	2,625,746	3,089,574
category II <sup>2</sup>	3,028,624	3,241,260	3,218,948	3,388,084	3,706,456
Total messages received	7,960,221	8,541,677	8,872,447	9,764,225	11,032,239
of which:					
category I <sup>1</sup>		2,463,012	2,657,324	3,013,534	3,525,885
category II <sup>2</sup>	•	3,444,189	3,496,285	3,656,006	3,893,434
Domestic traffic <sup>3</sup>	2,544,210	2,808,125	2,927,646	3,262,525	3,535,839
Memorandum item:					
Global S.W.I.F.T. traffic	365,159,291	405,540,962	457,218,200	518,097,873	603,575,374

 $<sup>^1</sup>$  Category I: customer (funds) transfers.  $^2$  Category II: bank (funds) transfers.  $^3$  Messages sent to/received from domestic users.

Source: S.W.I.F.T.

- 23 - *France* 

Table 1 **Basic statistical data** 

	1991	1992	1993	1994	1995
Population:					
year-end (millions)	56.9	57.2	57.7	57.7	57.8
GDP (FRF billions)	6,776.2	7,010.5	7,082.8	7,376.1	7,663.7
GDP per capita	119,090	122,561	122,752	127,835	132,070
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	5.356 5.642	5.393 5.294	5.849 5.663	5.416 5.552	4.964 4,991

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of French francs)

	1991	1992	1993	1994	1995
Notes and coin	254.4	255.5	249.4	252.2	255.8
Transferable deposits <sup>1</sup>	1,354.7	1,351.6	1,376.9	1,419.7	1,566.3
of which held by:					
corporate sector	367.5	352.8	381.7	414.7	439.6
households	715.3	743.7	742.2	748.0	821.5
others	271.9	255.2	252.0	257.0	305.2
Narrow money supply $(M_1)^2$	1,609.2	1,607.1	1,626.3	1,671.9	1,822.1
Broad money supply $(M_3)^3$	5,160.7	5,312.4	5,162.3	5,282.2	5,502.6

 $<sup>^1</sup>$  Excluding foreign currency deposits.  $^2$   $M_1$  = notes and coin and French franc denominated sight deposits held by non-banks (overseas territories excluded).  $^3$   $M_3$  =  $M_1$  + taxable passbook accounts, Savings Banks "A" passbook deposits and Mutual Credit Bank "blue" books, popular savings books (LEP), industrial development accounts (CODEVI) and housing savings accounts (CEL) + foreign currency denominated assets, time deposits and money market securities issued by credit institutions.

- 24 - France

Table 3

Settlement media used by banks

(at year-end, not seasonally adjusted, in billions of French francs)

	1991	1992	1993	1994	1995
Reserve balances held at central bank <sup>1</sup>	40.2	7.5	8.3	8.2	7.1
Transferable deposits at other institutions	2,846.9	2,482.9	2,631.4	2,839.6	3,191.9
Accounts at the Post Office	1.3	1.4			
Accounts at the Treasury	12.5	4.7			
Memorandum items:					
Required reserves	38.9	7.0	7.4	7.3	5.8
Institutions' borrowing from central bank <sup>2</sup>	187.3	321.0	392.5	229.4	

<sup>&</sup>lt;sup>1</sup> Monthly average. <sup>2</sup> Net stock; open market operations, repurchase agreements and discounting operations.

- 25 - France

Table 4

Banknotes and coin

(at year-end, not seasonally adjusted, in billions of French francs)

	1991	1992	1993	1994	1995
Total banknotes and coin issued <sup>1</sup>	281.3	283.5	280.7	284.5	287.1
Denomination of banknotes: <sup>1</sup>					
500 francs	134.1	134.1	133.8	129.9	124.3
200 francs	70.3	73.4	74.5	81.0	87.3
100 francs	52.4	50.6	47.8	48.3	49.8
50 francs	5.9	6.0	6.5	6.5	6.5
20 francs	1.2	1.1	1.0	1.0	1.0
10 francs	•		•	•	
Banknotes and coin held by credit institutions <sup>2</sup>	15.3	15.6	14.8	15.8	17.0
Total banknotes and coin outside credit institutions <sup>2</sup>	254.4	255.5	249.4	252.2	255.8
Memorandum item:					
Banknotes held in overseas territories	11.5	12.4	16.5	16.5	14.3

<sup>&</sup>lt;sup>1</sup> Including banknotes issued in overseas territories. <sup>2</sup> Banknotes issued in overseas territories are not included.

- 26 - *France* 

Table 5
Institutional framework

(at end-1995)

Categories	Number of institutions	Number of branches	Number of accounts <sup>1</sup> (thousands)	Value of accounts (FRF billions)
Central bank	1	211	64	4.0
Commercial banks	421 <sup>2</sup>	10,497	18,572	627.2
Savings banks	36	4,243	8,842	156.8
Cooperative and rural banks	132	10,663	23,701	451.9
Post Office	1	16,973	9,908	180.3
Municipal credit banks	21	76	80	0.9
Treasury	1	3,983	945	170.1

<sup>&</sup>lt;sup>1</sup> Sight deposits. <sup>2</sup> Branches of foreign banks: 90; foreign-owned banks: n.a.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1991	1992	1993	1994	1995
Cash dispensers and ATMs:					
Number of networks	1	1	1	1	1
Number of machinesVolume of transactions	16,134	17,432	18,735	20,533	22,850
(thousands) <sup>1</sup> Value of transactions	633,544	694,364	765,734	818,665	908,714
(FRF millions) <sup>1</sup>	295,515	316,492	334,083	347,406	368,590
EFTPOS:					
Number of networks	1	1	1	1	1
Number of machines <sup>2</sup> Volume of transactions	510,000	520,000	530,000	540,000	543,000
(thousands) <sup>2</sup> Value of transactions	1,327,706	1,442,487	1,564,462	1,672,404	1,866,803
(FRF millions) <sup>2</sup>	436,707	475,234	511,289	534,376	590,214

<sup>&</sup>lt;sup>1</sup> Including intrabank cash withdrawals and cash withdrawals processed through selected interbank payment systems. <sup>2</sup> Estimated. 10% of card payments are still made without using EFTPOS.

- 27 - France

Table 7

Number of payment cards in circulation (in thousands)

	1991	1992	1993	1994	1995
Cards with a cash function	19,820	21,072	21,812	22,812	24,430
Cards with a debit/credit function	19,743	20,892	21,466	22,240	23,617
of which:					
cards with a debit function cards with a credit function	19,743 345	20,892 453	21,466 512	22,240 579	23,617 654
Cards with a cheque guarantee function	82	192	193	•	
Retailer cards (estimated)	20,000	20,000	•	•	•

- 28 - France

Table 8

Payment instructions handled by selected payment systems: volume of transactions

(in millions)

	1991	1992	1993	1994	1995
Clearing houses	3,625.9	3,652.0	3,677.4	3,659.0	3,588.4
of which:					
cheques	3,597.0	3,633.4	3,663.5	3,650.0	3,582.1
credit transfers	5.6	3.8	2.8	2.2	1.6
bills of exchange	17.8	9.5	6.0	1.9	0.0
avals de trésorerie	0.6	0.4	0.5	0.4	0.3
large-value credit transfers	4.9	4.9	4.6	4.5	4.4
Automated clearing houses	3,422.0	3,740.6	4,038.9	4,364.4	4,742.5
CREIC (truncated cheques					
system)	214.8	230.8	252.6	259.9	281.8
Ordinateur de compensation	1,874.7	1,811.0	1,467.8	635.7	•
of which:					
credit transfers LCRs and paperless bills of	802.2	781.4	657.0	341.7	
exchange	126.8	124.3	102.1	49.8	
direct debits	620.1	588.1	455.8	156.0	
interbank payment orders	17.0	41.2	47.1	23.0	
ATM withdrawals	269.8	229.2	192.7	65.0	
card payments	38.8	46.8	13.1	0.2	•
Interbank Teleclearing System					
(SIT)	43.7	301.8	764.5	1,791.8	2,588.8
of which:					
credit transfersLCRs and paperless bills of	18.0	107.5	292.3	679.8	1,080.8
exchange	3.6	10.5	30.5	88.7	129.3
direct debits	8.2	90.3	258.2	636.5	850.3
interbank payment orders	0.2	2.5	20.0	55.4	91.1
card payments					1.9
ATM withdrawals	13.7	91.0	163.5	331.4	435.4
Cartes bancaires	1,288.8	1,397.0	1,554.0	1,677.0	1,872.6
ATM withdrawals		1.3	2.6	4.8	7.7
card payments	1,288.8	1,395.7	1,551.4	1,672.2	1,864.9
Banque de France	46.8	42.7	37.6	34.3	29.4
of which:					
Treasury transfers	44.0	39.6	34.9	32.0	27.3
interbank credit transfers	0.4	0.9	0.4	0.4	0.4
Banque de France large-					
value credit transfers	1.5	1.3	1.1	0.9	0.9
telegraphic credit transfers	0.9	0.9	1.2	1.0	0.8
Sagittaire large-value credit transfers	2.9	3.3	3.9	4.1	4.5

- 29 - France

Table 9 **Payment instructions handled by selected payment systems: value of transactions** 

(in billions of French francs)

	1991	1992	1993	1994	1995
Clearing houses	120,023.5	128,371.3	156,778.5	150,624.1	137,412.8
of which:					
chequesbils of exchangebils of exchangeavals de trésorerielarge-value credit transfers	11,634.9 1,228.3 509.3 71,354.0 35,297.0	11,582.0 1,275.5 316.1 73,179.0 42,018.7	11,130.4 1,277.5 199.0 79,277.8 64,893.8	11,300.9 1,244.5 36.3 71,416.5 66,625.9	11,025.3 1,312.7 0.0 62,263.3 62,811.5
Automated clearing houses	7,825.5	8,491.3	9,000.2	9,599.2	10,097.8
CREIC (truncated cheques system)	119.8	129.1	140.6	143.4	155.0
Ordinateur de compensation	7,178.6	7,661.6	6,731.4	3,463.7	
of which:					
credit transfers LCRs and paperless bills of	3,104.3	3,458.6	3,292.5	1,913.5	
exchange direct debits interbank payment orders ATM withdrawals	2,969.3 959.7 29.0 107.9 8.4	3,065.5 991.2 47.2 88.7 10.4	2,521.6 786.3 54.1 73.9 3.0	1,230.5 267.5 28.4 23.8 0.1	
Interbank Teleclearing System (SIT)	98.8	234.9	1,618.2	5,454.5	9,348.0
of which:  credit transfers	43.8	103.8	783.1	2,518.6	4,881.5
LCRs and paperless bills of exchangedirect debitsinterbank payment orders card payments	39.1 9.8 0.6	23.9 69.0 2.6	434.7 320.6 15.3	1,825.8 929.0 59.1	2,950.8 1,247.8 112.5 0.5
ATM withdrawals	5.5	35.6	61.5	122.0	154.9
Cartes bancaires	428.3	465.7	510.0	537.6	594.8
ATM withdrawalscard payments	428.3	0.8 464.9	1.7 508.3	3.3 534.2	5.1 589.7
Banque de France	40,378.3	42,547.8	44,346.3	41,741.8	36,838.4
of which:					
Treasury transfers interbank credit transfers Banque de France large-	691.8 158.6	467.8 131.3	457.8 199.8	429.8 190.5	470.5 279.2
value credit transfers telegraphic credit transfers	32,015.4 7,512.5	34,466.4 7,482.3	36,022.6 7,666.1	38,107.1 5,014.4	29,645.6 6,443.1
Sagittaire large-value credit transfers	43,845.0	59,219.0	108,750.0	110,847.0	104,567.0

- 30 - France

Table 10

Transfer instructions handled by securities settlement systems:
volume of transactions

	1991	1992	1993	1994	1995
SATURNE:					
Treasury bills BMTN <sup>1</sup>	109,837	126,904 3,639	172,254 9,542	182,109 7,859	248,056 7,687
Other TCN <sup>2</sup>	8,378	6,160	15,809	32,642	60,333
RELIT			13,000,000	15,000,000	12,000,000

 $<sup>^{1}</sup>$  Medium-term negotiable instruments (transferred through SATURNE for the first time in 1992).  $^{2}$  Short-term negotiable instruments.

Table 11

Transfer instructions handled by securities settlement systems: value of transactions

(in billions of French francs)

	1991	1992	1993	1994	1995
SATURNE:					
Treasury bills BMTN <sup>1</sup> Other TCN <sup>2</sup>	5,203.8 373.3	10,199.8 174.8 342.9	19,673.2 436.7 1,169.1	23,306.0 290.3 2,167.0	40,042.9 269.2 3,729.0
RELIT: <sup>3</sup>					
Bonds		11,400 2,600 3,800	21,600 5,100 5,300	25,250 6,200 4,050 4,500	34,203 4,366 3,586

 $<sup>^{1}</sup>$  Medium-term negotiable instruments (transferred through SATURNE for the first time in 1992).  $^{2}$  Short-term negotiable instruments.  $^{3}$  The RELIT DVP system began full-scale operation in 1992.

- 31 - France

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

(in millions)

Instruments	1991	1992	1993	1994	1995
Cheques issued	4,776.4	4,868.7	4,909.0	4,876.4	4,844.7
Payments by debit and credit					
card	1,327.7	1,442.5	1,564.5	1,672.4	1,866.8
Paper-based credit transfers	88.3	77.0	65.8	58.3	53.8
of which:					
customer initiated	80.0	68.6	58.0	51.1	47.0
interbank/large-value	8.3	8.4	7.8	7.2	6.8
Paperless credit transfers	1,302.7	1,404.0	1,472.8	1,556.4	1,676.5
of which:					
customer initiated	1,299.8	1,400.7	1,468.9	1,552.3	1,672.0
interbank/large-value	2.9	3.3	3.9	4.1	4.5
Direct debits	853.7	979.6	1,057.8	1,205.1	1,320.5
Bills of exchange	163.3	159.3	153.6	151.2	142.6
ATM withdrawals	633.5	694.4	765.7	818.7	908.7
Total	9,145.6	9,625.5	9,989.2	10,338.5	10,813.6

- 32 - France

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

(in billions of French francs)

Instruments	1991	1992	1993	1994	1995
Cheques issued	16,276	16,099	15,291	14,255	13,872
Payments by debit and credit card	437	475	511	534	590
Paper-based credit transfers	149,421	160,075	191,426	183,661	163,884
of which:					
customer initiated	3,083	2,797	3,366	2,307	2,441
interbank/large-value	146,338	157,278	188,060	181,354	161,443
Paperless credit transfers	50,231	66,280	117,013	119,162	113,760
of which:					
customer initiated	6,386	7,061	8,263	8,315	9,193
interbank/large-value	43,845	59,219	108,750	110,847	104,567
Direct debits	1,499	1,557	2,314	2,604	1,924
Bills of exchange	3,813	3,690	3,445	3,313	3,217
ATM withdrawals	296	316	334	347	369
Total	221,973	248,492	330,334	323,876	297,616

- 33 - *France* 

Table 14

Participation in S.W.I.F.T. by domestic institutions<sup>1</sup>

	1991	1992	1993	1994	1995
Members	105	109	105	108	111
of which: live	104	101	98	103	104
Sub-members <sup>2</sup>	83	87	93	98	97
of which: live	81	80	91	96	95
Participants <sup>3</sup>	4	4	4	5	8
of which: live	3	3	3	4	7
Total users	192	200	202	211	216
of which: live	188	184	192	203	206
Memorandum items:					
Total S.W.I.F.T.:					
memberssub-members	1,963 1,607	2,074 1,738	2,244 1,887	2,551 2,097	2,693 2,259
participantsusers	78 3,648	91 3,903	125 4,256	218 4,866	277 5,229

<sup>&</sup>lt;sup>1</sup> Data for France include Monaco, Guadeloupe, Martinique and Réunion. <sup>2</sup> Domestic users sponsored by members abroad. <sup>3</sup> Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15 S.W.I.F.T. message flows to/from domestic users<sup>1</sup>

	1991	1992	1993	1994	1995
Total messages sent	27,710,200	30,310,818	34,258,946	36,494,832	41,003,897
of which:					
category I <sup>2</sup>	7,999,200	8,533,000	8,966,621	9,608,391	10,379,951
category II <sup>3</sup>	9,603,300	10,450,100	11,843,080	12,253,787	13,937,393
Total messages received	25,896,300	28,460,152	31,838,047	33,446,733	37,786,319
of which:					
category I <sup>2</sup>		8,753,700	9,216,560	9,910,743	10,711,093
category II <sup>3</sup>	•	10,472,800	12,163,096	12,224,274	13,895,771
Domestic traffic <sup>4</sup>	8,226,500	9,386,200	10,963,677	11,455,375	13,387,410
Memorandum item:					
Global S.W.I.F.T. traffic	365,159,291	405,540,962	457,218,200	518,097,873	603,575,374

<sup>&</sup>lt;sup>1</sup> Data for France include Monaco, Guadeloupe, Martinique and Réunion. <sup>2</sup> Category I: customer (funds) transfers. <sup>3</sup> Category II: bank (funds) transfers. <sup>4</sup> Messages sent to/received from domestic users.

Source: S.W.I.F.T.

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Table 1 **Basic statistical data** 

	1991	1992	1993	1994	1995
Population (millions):					
year-end average	80.3 80.0	81.0 80.6	81.3 81.2	81.5 81.4	81.8 81.4
GDP (DEM billions)	2,853.6	3,075.6	3,159.1	3,320.3	3,457.4
GDP per capita (DEM thousands)	35.7	38.2	38.9	40.8	42.3
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	1.5160 1.6612	1.6140 1.5595	1.7263 1.6544	1.5488 1.6218	1.4335 1.4338

Table 2 **Settlement media used by non-banks**(at year-end, in billions of Deutsche Mark)

	1991	1992	1993	1994	1995
Notes and coin <sup>1</sup>	171.8	200.5	212.0	225.9	237.5
Narrow money supply $(M_1)^2$	604.0	669.6	726.3	764.1	816.1
Memorandum item:  Broad money supply  (M <sub>3</sub> ) <sup>2</sup>	1,597.7	1,718.7	1,906.6	1,937.0	2,007.4
Transferable deposits <sup>3</sup> of which held by:	445.0	469.5	527.8	541.1	580.8
householdscorporate sectorother	253.7 149.2 42.1	288.5 152.1 28.9	327.3 158.8 41.7	333.1 174.7 33.3	352.0 197.3 31.5

 $<sup>^1</sup>$  Excluding credit institutions' cash balances.  $^2$   $M_1$  = currency in circulation (excluding credit institutions' cash balances) + domestic non-banks' sight deposits (excluding public sector's deposits held at the central bank).  $M_2 = M_1 + domestic non-banks'$  time deposits at less than four years.  $M_3 = M_2 + savings$  deposits of domestic non-banks at statutory notice.  $^3$  Sight deposits of domestic non-banks (including deposits held at the central bank).

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Table 3

Settlement media used by banks
(at year-end, in billions of Deutsche Mark)

	1991	1992	1993	1994	1995
Reserve balances held at central bank <sup>1</sup>	75.0	86.4	60.4	44.4	37.3
of which:  required reserves <sup>2</sup>	73.6	85.2	59.6	43.6	36.5
Transferable deposits held at other institutions	226.9	301.2	380.2	342.8	363.9
Memorandum item:					
Institutions' borrowing from central bank <sup>3</sup>	1.9	1.6	14.8	9.8	5.5

 $<sup>^{1}</sup>$  "Actual reserves".  $^{2}$  For 1991-1994, after deduction of deductible cash balances.  $^{3}$  Lombard loans.

Table 4

Banknotes and coin
(at year-end, in billions of Deutsche Mark)

	1991	1992	1993	1994	1995
Total banknotes and coin outstanding <sup>1</sup>	194.6	227.3	238.6	250.9	263.5
Denomination of banknotes:					
1,000 Mark	46.9	64.3	68.5	75.0	81.1
500 Mark	21.5	24.0	24.3	25.7	26.1
200 Mark	9.6	11.5	11.6	11.3	10.8
100 Mark	73.8	82.1	86.8	90.7	95.9
50 Mark	18.3	19.4	20.3	20.4	21.1
20 Mark	6.7	7.4	7.7	7.9	8.1
10 Mark	4.2	4.4	4.7	4.8	5.0
5 Mark	0.3	0.3	0.3	0.2	0.3
Banknotes and coin held by credit institutions	22.8	26.8	26.7	25.0	26.0
Total banknotes and coin outside credit institutions <sup>2</sup>	171.8	200.5	212.0	225.9	237.5

<sup>&</sup>lt;sup>1</sup> Including credit institutions' cash balances. <sup>2</sup> Identical with Table 2, "Notes and coin".

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Table 5

Institutional framework
(at end-1995)

Categories	Number of institutions	Number of branches <sup>1</sup>	Number of accounts (thousands) <sup>2</sup>	Value of accounts (DEM billions)
Central bank <sup>3</sup>	1	178	36	0.9
Commercial banks <sup>4</sup>	384	27,824	20,400	219.0
Savings banks	637	20,141	37,200	233.6
Cooperative and rural banks	2,595	19,843	22,600	127.3
Memorandum item:				
Branches of foreign banks	69	114	23	2.6

<sup>&</sup>lt;sup>1</sup> Branches = number of bank offices. <sup>2</sup> Sight accounts of domestic non-banks, partly estimated. <sup>3</sup> The Bundesbank as a legal entity comprises the Central Office (in Frankfurt am Main) and nine Land Central Banks with 177 branches. <sup>4</sup> Including mortgage banks, instalment sales financing institutions, banks with special functions and Deutsche Postbank AG (which commenced operations as a fully fledged credit institution on 1st January 1995).

Table 6

Cash dispensers, ATMs and EFTPOS terminals<sup>1</sup>

	1991	1992	1993	1994	1995
Cash dispensers and ATMs:					
Number of networks	4	4	4	4	4
Number of machines	13,750	19,000	25,000	29,400	35,700
Volume of transactions					
(millions)	•			935	1,100
Value of transactions					
(DEM billions)	•	•	•	238.5	310.0
EFTPOS:					
Number of networks <sup>2</sup>	18	19	18	18	19
Number of machines <sup>2</sup>	34,673	51,806	28,000	62,500	70,048
Volume of transactions					
$(millions)^3$	20.2	28.0	69.1	104.0	149.4
Value of transactions					
$(DEM\ billions)^3$	1.8	1.9	6.2	10.8	20.5

 $<sup>^{1}</sup>$  Partly estimated.  $^{2}$  From 1993 on, electronic cash and POZ procedures only.  $^{3}$  From 1993 on, electronic cash and POZ procedures only. In 1991 and 1992, electronic cash and other debit card procedures.

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 $\label{eq:Table 7} \textbf{Number of payment cards in circulation}^1$ 

(at year-end, in thousands)

	1991	1992	1993	1994	1995
Cards with a cash function	•	•	•	•	
Cards with a debit/credit function	33,528	39,272	44,842	47,353	74,337
cards with a debit function <sup>2</sup> cards with a credit function	27,424 6,104	31,863 7,409	35,901 8,941	37,113 10,240	62,597 11,740
Cards with a cheque guarantee function	27,424	31,863	35,901	37,113	38,479
Retailer cards	1,500	3,000		4,500	4,800

<sup>&</sup>lt;sup>1</sup> Partly estimated. <sup>2</sup> Eurocheque cards, eligible for cash and debit functions in association with a Personal Identification Number (PIN). In 1995, including bank customer cards (24,118,000).

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Table 8
Payment instructions handled by selected IFTs:1
volume of transactions

(in millions)

	1991	1992	1993	1994	1995
Retail payments	2,762.2	2,649.5	2,613.5	2,355.1	2,272.2
Maschinell-optische Beleglesung (MAOBE) <sup>2</sup>	577.3	511.7	393.5	248.0	115.3
Collection items Credit transfers	230.2 347.1	214.9 296.8	155.5 238.0	86.0 162.0	26.7 88.6
Belegloser	347.1	290.8	238.0	102.0	88.0
Datenträgeraustausch (DTA) <sup>3</sup>	2,184.9	2,137.8	2,220.0	2,107.1	2,156.9
Collection items Credit transfers	1,788.3 396.6	1,693.3 444.5	1,702.2 517.8	1,496.9 610.2	1,499.1 657.8
Large-value payments	426.2	463.5	483.8	477.6	33.1
Gross settlement procedures	83.2	74.5	56.5	34.3	13.6
of which:					
Eiliger Zahlungsverkehr (EIL-ZV) <sup>4</sup> Platzüberweisungsverkehr <sup>5</sup>	3.0 80.2	2.6 71.9	3.4 53.1	4.0 30.3	5.5 8.1
Net settlement procedures	343.0	389.0	427.3	443.3	19.5
Konventionelle Abrechnung <sup>6,7</sup>	338.0	381.2	416.4	430.6	1.7
Collection items (conventional) <sup>7</sup> Local credit transfers	44.8	57.2	95.4	150.8	0.7
(conventional) <sup>7</sup>	293.2	324.0	321.0	279.8	1.0
Elektronische Abrechnung Frankfurt (EAF) <sup>8</sup>	5.0	7.8	10.9	12.7	17.8

<sup>&</sup>lt;sup>1</sup> Does not include figures relating to IFTs not operated by the Deutsche Bundesbank. <sup>2</sup> Machine-optical voucher reading procedure, excluding payments submitted in a paper-based form which have been 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). <sup>3</sup> Paperless exchange of data media, including payments submitted in a paper-based form which have been 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). <sup>4</sup> Express electronic credit transfer system. <sup>5</sup> Express paper-based local credit transfer system. Decrease due to conversion requirement, resulting in a switch of previously paper-based payments to EIL-ZV and DTA. <sup>6</sup> Daily local clearing system. <sup>7</sup> Reporting change in 1995: number of delivery envelopes cleared instead of individual payments contained therein. <sup>8</sup> Electronic clearing Frankfurt.

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Table 9 **Payment instructions handled by selected IFTs:**value of transactions

(in billions of Deutsche Mark)

	1991	1992	1993	1994	1995
Retail payments	4,726.4	4,846.1	4,822.1	4,688.7	4,699.4
Maschinell-optische Beleglesung (MAOBE) <sup>2</sup>	3,220.7	3,112.9	2,814.4	2,307.3	266.9
Collection items	2,924.2	2,924.8	2,666.5	2,203.4	240.0
Credit transfers	296.5	188.1	147.9	103.9	26.9
Belegloser Datenträgeraustausch (DTA) <sup>3</sup>	1,505.7	1,733.2	2,007.7	2,381.4	4,432.5
Collection items Credit transfers	887.0 618.7	907.4 825.8	1,063.8 943.9	1,313.9 1,067.5	3,277.1 1,155.4
Large-value payments	137,703.9	160,441.4	195,455.3	204,656.0	187,966.8
Gross settlement procedures	18,911.4	22,041.2	27,661.8	30,342.6	32,197.1
of which:					
Eiliger Zahlungsverkehr (EIL-ZV) <sup>4</sup> Platzüberweisungsverkehr <sup>5</sup>	10,792.2 8,119.2	13,611.0 8,430.2	18,874.6 8,787.2	22,772.4 7,570.2	27,007.5 5,189.6
Net settlement procedures	118,792.5	138,400.2	167,793.5	174,313.4	155,769.7
Konventionelle Abrechnung <sup>6</sup>	63,856.3	55,377.1	38,488.5	29,409.9	7,382.3
Collection items (conventional) Local credit transfers	735.7	818.9	827.6	799.9	669.8
(conventional)	63,120.6	54,558.2	37,660.9	28,610.0	6,712.5
Elektronische Abrechnung Frankfurt (EAF) <sup>7</sup>	54,936.2	83,023.1	129,305.0	144,903.5	148,387.4

<sup>&</sup>lt;sup>1</sup> Does not include figures relating to IFTs not operated by the Deutsche Bundesbank. <sup>2</sup> Machine-optical voucher reading procedure, excluding payments submitted in a paper-based form which have been 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). <sup>3</sup> Paperless exchange of data media, including payments submitted in a paper-based form which have been 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). <sup>4</sup> Express electronic credit transfer system. <sup>5</sup> Express paper-based local credit transfer system. Decrease due to conversion requirement, resulting in a switch of previously paper-based payments to EIL-ZV and DTA. <sup>6</sup> Daily local clearing system. <sup>7</sup> Electronic clearing Frankfurt.

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Table 10

Transfer instructions handled by securities settlement systems:

volume of transactions

(in millions)

	1991	1992	1993	1994	1995
Total	20.5	22.6	27.8	25.2	23.4
Delivery versus payment	16.4	16.5	21.9	20.5	19.0
Without countervalue	4.1	6.1	5.9	4.7	4.4

<sup>&</sup>lt;sup>1</sup> Source: Deutscher Kassenverein AG.

Table 11

Transfer instructions handled by securities settlement systems:

value of transactions

(in billions of Deutsche Mark)

	1991	1992	1993	1994	1995
Delivery versus payment	2,852.9	4,663.5	9,417.8	9,510.5	11,878.7

<sup>&</sup>lt;sup>1</sup> Source: Deutscher Kassenverein AG.

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Table 12

Indicators of use of various cashless payment instruments: volume of t ransactions<sup>1</sup>

(in millions)

Instruments	1991	1992	1993	1994	1995
Cheques issued	880.0	902.0	934.0	903.0	807.0
of which:					
truncated <sup>2</sup>	643.0	658.0	730.0	722.0	645.6
Payments by credit and debit cards <sup>3</sup>	170.3	214.0	293.5	350.5	416.1
Paper-based credit transfers	2,012.3	1,991.2	1,959.1	1,672.2	1,134.2
customer initiated interbank/large-value <sup>4</sup>	1,989.0 23.3	1,971.0 20.2	1,947.8 11.3	1,664.7 7.5	1,132.2 2.0
Paperless credit transfers	2,697.3	3,092.4	3,294.3	3,899.4	4,548.9
customer initiated interbank/large-value <sup>4</sup>	2,691.0 6.3	3,083.0 9.4	3,281.2 13.1	3,884.3 15.1	4,528.8 20.1
Direct debits <sup>5</sup>	3,419.8	4,016.0	4,286.9	4,607.0	4,582.6
Total	9,179.7	10,215.6	10,767.8	11,432.1	11,488.8

<sup>&</sup>lt;sup>1</sup> Partly estimated; for 1995, adjusted volume of cheque, credit transfer and direct debit transactions. Without adjustment, cashless payment transactions would show a steady increase in volume (of approximately 6%). <sup>2</sup> Not included in direct debits in order to avoid double-counting. <sup>3</sup> Excluding retailer cards. Credit cards: the card companies' settlements with the retailers (normally credit transfers) and payment of the monthly totals by card holders to card issuers by credit transfer, direct debit or cheque are contained in the corresponding items. Debit cards: not included in item "direct debits". <sup>4</sup> Only interbank payments via the Bundesbank in Konventionelle Abrechnung in Frankfurt, Elektronische Abrechnung Frankfurt, Eiliger Zahlungsverkehr and Platzüberweisungsverkehr. <sup>5</sup> Including cash dispenser/ATM withdrawals made with eurocheque cards at banks other than that issuing the card.

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Table 13

Indicators of use of various cashless payment instruments: value of transactions<sup>1</sup>

(in billions of Deutsche Mark)

Instruments	1991	1992	1993	1994	1995
Cheques issued	4,443.0	4,583.0	5,343.0	5,550.0	4,544.0
of which:					
truncated <sup>2</sup>	254.0	261.0	583.0	662.8	908.8
Payments by credit and debit cards <sup>3</sup>	30.0	35.7	48.3	57.2	62.6
Paper-based credit transfers	84,343.0	76,837.7	65,984.4	55,224.8	26,764.2
customer initiated interbank/large-value <sup>4</sup>	16,273.0 68,070.0	19,303.0 57,534.7	24,418.6 41,565.8	22,908.5 32,316.3	15,743.2 11,021.0
Paperless credit transfers	68,349.0	103,156.0	155,854.9	177,993.7	185,615.2
customer initiated interbank/large-value <sup>4</sup>	5,424.0 62,925.0	9,508.0 93,648.0	11,333.4 144,521.5	15,528.5 162,465.2	19,634.8 165,980.4
Direct debits <sup>5</sup>	2,902.2	3,906.1	4,481.7	4,766.8	4,644.5
Total	160,067.2	188,518.5	231,712.3	243,592.5	221,630.5

<sup>&</sup>lt;sup>1</sup> Partly estimated; for 1995, adjusted value of cheque, credit transfer and direct debit transactions. <sup>2</sup> Not included in direct debits in order to avoid double-counting. <sup>3</sup> Excluding retailer cards. Credit cards: the card companies' settlements with the retailers (normally credit transfers) and payment of the monthly totals by card holders to card issuers by credit transfer, direct debit or cheque are contained in the corresponding items. Debit cards: not included in item "direct debits". <sup>4</sup> Only interbank payments via the Bundesbank in Konventionelle Abrechnung in Frankfurt, Elektronische Abrechnung Frankfurt, Eiliger Zahlungsverkehr and Platzüberweisungsverkehr. <sup>5</sup> Including cash dispenser/ATM withdrawals made with eurocheque cards at banks other than that issuing the card.

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Table 14

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

	1991	1992	1993	1994	1995
Members	150	152	153	152	157
of which: live	144	148	150	149	152
Sub-members <sup>1</sup>	81	84	82	92	100
of which: live	71	79	78	88	97
Participants <sup>2</sup>	1	2	2	6	7
of which: live	1	1	2	3	4
Total users	232	238	237	250	264
of which: live	216	228	230	240	253
Memorandum items:					
Total S.W.I.F.T.:					
members	1,963	2,074	2,244	2,551	2,693
sub-members	1,607	1,738	1,887	2,097	2,259
participants	<i>78</i>	91	125	218	277
users	3,648	3,903	4,256	4,866	5,229

 $<sup>^{1}</sup>$  Domestic users sponsored by members abroad.  $^{2}$  Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

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

	1991	1992	1993	1994	1995
Total messages sent	30,963,599	32,585,476	35,359,560	38,187,536	43,824,742
of which:					
category I <sup>1</sup>	11,027,035	11,997,937	12,842,381	13,843,274	15,580,557
category II <sup>2</sup>	6,563,223	6,747,897	7,245,703	7,557,127	8,373,229
Total messages received	42,081,217	44,887,628	48,149,365	51,011,768	56,505,445
of which:					
category I <sup>1</sup>		14,832,041	15,490,352	16,438,145	17,759,489
category II <sup>2</sup>	•	18,220,015	20,424,752	21,833,621	24,441,740
Domestic traffic <sup>3</sup>	5,158,337	5,527,524	6,056,083	6,310,196	6,734,317
Memorandum item:					
Global S.W.I.F.T. traffic	365,159,291	405,540,962	457,218,200	518,097,873	603,575,374

 $<sup>^1</sup>$  Category I: customer (funds) transfers.  $^2$  Category II: bank (funds) transfers.  $^3$  Messages sent to/received from domestic users.

Source: S.W.I.F.T.

- 45 - Italy

Table 1 **Basic statistical data** 

	1991	1992	1993	1994	1995
Population (millions):					
year-end <sup>1</sup>	56.8	56.9	57.2	57.2	57.3
GDP (ITL billions)	1,429,453	1,504,003	1,550,150	1,641,105	1,774,035
GDP per capita (ITL millions)  Exchange rate (domestic currency vis-à-vis USD):	25.1	26.5	27.3	28.7	31.0
year-endaverage	1,151.1 1,241.6	1,470.9 1,232.3	1,704.0 1,573.7	1,629.7 1,611.8	1,584.7 1,628.9

<sup>&</sup>lt;sup>1</sup> Since 1991 (year of the last census) the figures relating to population have been rectified.

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of Italian lire)

	1991	1992	1993	1994	1995
Notes and coin	76,354	85,617	89,769	96,221	98,281
Narrow money supply (M <sub>1</sub> )	537,502	544,046	578,472	599,978	604,492
Transferable deposits	441,719	442,418	473,943	488,055	490,240
Other	19,429	16,011	14,760	15,702	15,971
Memorandum item:  Broad money supply <sup>1</sup>	878,104	920,026	986,268	1,085,278	1,112,168

<sup>&</sup>lt;sup>1</sup> Since 1994 includes certificates of deposit issued by the former special credit institutions.

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Table 3

Settlement media used by credit/deposit-taking institutions
(at year-end, in billions of Italian lire)

	1991	1992	1993	1994	1995
Reserve balances held at central bank <sup>1</sup>	129,111	130,054	105,917	92,619	73,938
of which: required reserves	128,915	129,927	105,796	92,468	73,736
Transferable deposits at other institutions <sup>2</sup>	55,016	46,407	52,455	56,352	64,156
Memorandum item:					
Institutions' borrowing from central bank <sup>3</sup>	1,134	1,235	1,906	1,888	2,636

 $<sup>^1</sup>$  The data comprise average required reserves and average free reserves for the period 15th December - 14th January.  $^2$  Sight interbank deposits and net balances of reciprocal accounts are included.  $^3$  The data comprise institutions' average borrowing through ordinary advances for the period 15th December - 14th January.

Table 4

Banknotes and coin

(at year-end, not seasonally adjusted, in billions of Italian lire)

	1991	1992	1993	1994	1995
Total banknotes and coin outstanding	82,024	90,859	95,230	101,788	105,146
Denomination of banknotes:					
100,000 lire	56,570	63,205	66,862	72,346	74,815
50,000 lire	18,154	20,018	20,662	21,531	22,177
10,000 lire	3,882	3,929	3,903	3,996	4,077
5,000 lire	776	827	848	905	938
2,000 lire	170	298	346	333	292
1,000 lire	939	945	887	914	950
Banknotes and coin held by					
credit institutions	5,670	5,242	5,461	5,567	6,865
Total banknotes and coin					
outside credit institutions	76,354	85,617	89,769	96,221	98,281

- 47 - Italy

Table 5
Institutional framework

(at end-1995)

Categories	Number of institutions	Number of branches	Number of accounts (thousands)	Value of accounts (ITL billions)
Central bank	1	98		•
Commercial banks <sup>1</sup>	255	16,822	20,639	393,742
Cooperative and rural banks	715	6,618	5,013	89,160
Postal Administration	1	14,500	521	7,338
Memorandum item:				
Branches of foreign banks	52	78	10	1,300

<sup>&</sup>lt;sup>1</sup> Includes the former special credit institutions (37 institutions with 119 branches) which have been authorised by the 1993 Banking Law to collect deposits.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1991	1992	1993	1994	1995
Cash dispensers and ATMs:					
Number of networks Number of machines	1 11,571	1 13,917	1 15,227	1 18,672	1 21,670
Volume of transactions (thousands) <sup>1</sup> Value of transactions <sup>1</sup>	131,283	162,583	187,407	211,247	244,655
(ITL billions)	38,992	49,168	58,050	66,537	77,480
EFTPOS:					
Number of networks  Number of terminals  Volume of transactions	45,711	62,251	77,206	104,051	153,752
(thousands) <sup>1</sup>	8,500	12,681	17,774	26,095	37,895
(ITL billions)	1,727	2,526	3,398	4,943	7,158

 $<sup>^{1}</sup>$  Data relating to a sample group of 75 banks accounting for approximately 80% of current account deposits of the entire banking system.

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 $\begin{tabular}{ll} Table 7 \\ \begin{tabular}{ll} Number of payment cards in circulation $^1$ \\ (in thousands) \end{tabular}$ 

	1991	1992	1993	1994	1995
Cards with a cash function	8,948	10,606	11,295	12,396	13,824
Cards with a debit/credit function	12,991	14,858	16,279	18,210	20,482
of which:					
cards with a debit function cards with a credit function	8,059 4,932	9,494 5,364	10,555 5,724	12,124 6,086	13,791 6,691
Cards with a cheque guarantee function <sup>2</sup>	2,323	2,187	1,674	1,766	1,655
Retailer cards	•	•	•	•	•

 $<sup>^{1}</sup>$  A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures.  $^{2}$  Includes eurocheque cards and, up to 1992, cheque guarantee cards usable only in Italy. Since 1991, the latter have been gradually eliminated.

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Table 8

Payment instructions handled by selected payment systems:
volume of transactions

(in thousands)

	1991	1992	1993	1994	1995
Clearing sub-systems:					
Local clearing	440,125	292,129	253,189	240,675	235,665
of which:					
cheques of which: out-of-town	436,187	288,458	250,617	238,504	233,698
cheques	222,395	96,062	85,703	85,782	90,259
bills of exchange <sup>1</sup>	1,680	1,430	1,019		
credit transfers <sup>2</sup>		441	325	282	263
other items <sup>3</sup>	2,258	1,800	1,228	1,889	1,704
Electronic Memoranda	1,465	1,804	1,896	2,084	1,810
of which:					
interbank deposits	722	1,020	1.005	731	725
foreign operations	600	542	533	562	208
credit transfers	64	147	187	222	285
other items <sup>4</sup>	79	95	171	569	592
SIPS	2,311	2,780	3,111	3,526	4,462
Retail	125,086	361,783	451,171	489,582	586,865
of which:					
cheque truncation	79.162	317,970	321,354	287,179	283,937
Bancomat	45,924	43,813	56,114	61,616	74,383
collection orders	•	•	73,703	140,333	154,061
credit transfers		•	•	454	74,484
Centralised accounts <sup>5</sup>	949	1,136	1,056	1,016	1,027
of which:					
payments between banks and Banca d'Italia/					
Treasury	943	1,116	1,013	973	981
BISS	6	20	43	43	46

<sup>&</sup>lt;sup>1</sup> From 1994 onwards, Bills of exchange are included in "other items". <sup>2</sup> Up to 1991, credit transfers are included in "other items". <sup>3</sup> Includes: up to 1992 settlement of securities transactions; payments between the banking system and the Treasury, the Banca d'Italia or the Postal Administration; up to 1991, credit transfers; and from 1994, bills of exchange. <sup>4</sup> From 1993 onwards, the settlement of securities transactions in particular. <sup>5</sup> Debits/credits for the settlement of clearing balances are not included.

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Table 9

Payment instructions handled by selected payment systems: value of transactions

(in billions of Italian lire)

	1991	1992	1993	1994	1995
Clearing sub-systems:					
Local clearing	5,696,810	6,345,384	4,622,317	4,255,270	3,574,629
of which:					
cheques of which: out-of-town	1,631,530	1,605,684	1,583,041	1,587,415	1,635,293
cheques	643,187	606,197	622,365	629,890	659,491
bills of exchange <sup>1</sup>	48,715	45,193	40,394		
credit transfers <sup>2</sup>		1,024,169	732,001	634,657	593,773
other items <sup>3</sup>	4,016,565	3,670,338	2,266,881	2,033,198	1,345,563
Electronic Memoranda	6,332,000	10,450,000	17,067,600	17,972,187	18,408,502
of which:					
interbank deposits	5,223,000	8.772.000	11.698.000	11,782,702	11,557,140
foreign operations	553,000	782,000	987,000	894,808	493,336
credit transfers	225,000	539,000	716,000	857,732	1,029,143
other items <sup>4</sup>	331,000	357,000	3,666,600	4,436,945	5,328,433
SIPS	8,273,530	11,994,531	18,293,744	25,928,601	27,377,138
Retail	75,368	262,740	492,310	675,298	1,239,833
of which:					
check truncation	63,643	251,554	288,342	286,985	290.343
Bancomat	11,725	11,186	16,152	17,821	21,303
collection orders			187,816	367,504	<b>4</b> 68,342
credit transfers	•	•	•	2,988	459,845
Centralised accounts <sup>5</sup>	1,650,500	2,873,100	2,619,500	2,428,800	2,737,756
of which:					
payments between banks and Banca d'Italia/					
Treasury	1,613,700	2,775,000	2,538,300	2,318,900	2,599,800
BISS	36,800	98,100	81,200	109,900	137,956

<sup>&</sup>lt;sup>1</sup> From 1994 onwards, Bills of exchange are included in "other items". <sup>2</sup> Up to 1991, credit transfers are included in "other items". <sup>3</sup> Includes: up to 1992 settlement of securities transactions; payments between the banking system and the Treasury, the Banca d'Italia or the Postal Administration; up to 1991, credit transfers; and from 1994, bills of exchange. <sup>4</sup> From 1993 onwards, the settlement of securities transactions in particular. <sup>5</sup> Debits/credits for the settlement of clearing balances are not included.

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Table 11

Transfer instructions handled by securities settlement systems: value of transactions

(in billions of Italian lire)

	1991	1992	1993	1994	1995
Securities Settlement					
Procedures:	3,083,221	4,187,516	9,562,669	12,539,583	15,134,844
government securities	2,922,895	4,053,516	9,264,315	12,100,697	14,801,877
bonds	27,748	25,125	55,547	37,619	45,405
shares	132,578	108,875	242,807	401,267	287,562
Government Securities Centralised Accounts (CAT) <sup>1</sup>	324,599	586,274	1,884,042	1,743,402	1,575,070

<sup>&</sup>lt;sup>1</sup> Procedure launched in September 1990. Net balances resulting from the securities settlement procedures are not included. The number of transfer instructions handled through the CAT procedure amounted to 561,200 in 1993, 845,800 in 1994 and 960,500 in 1995.

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(in millions)

Instruments	1991	1992	1993	1994	1995
Cheques issued	689.3	674.5	621.6	574.8	563.6
Payments by debit and credit					
cards	63.5	74.8	81.7	100.6	130.6
Paper-based credit transfers	631.3	660.9	697.7	706.0	707.0
customer initiated <sup>2</sup>	628.1	658.0	695.5	703.1	704.3
interbank/large-value	3.2	2.9	2.2	2.9	2.7
Paperless credit transfers	168.7	172.5	178.5	208.4	214.8
customer initiated	164.9	167.9	173.6	203.0	208.8
interbank/large-value	3.8	4.6	4.9	5.4	6.0
Direct debits	62.6	69.0	73.2	78.7	90.9
Others	173.4	167.5	159.0	153.1	157.3
paperless collections <sup>3</sup>	86.6	95.7	99.9	106.6	124.5
paper-based collections <sup>4</sup>	86.8	71.8	59.1	46.5	32.8
Total	1,788.8	1,819.2	1,811.7	1,821.6	1,864.2

<sup>&</sup>lt;sup>1</sup> The figures for payment operations effected by banking instruments have been provided by 75 banks accounting for approximately 80% of the current account deposits of the entire banking system. The data on the other payment operations (Banca d'Italia cashier's cheques, postal instruments, credit cards, interbank large-value transfers) relate to the entire system. <sup>2</sup> Customer initiated paper-based transfers include postal money orders and inpayments to postal current accounts that are processed automatically within the Postal System but originate from cash payments at post offices. <sup>3</sup> Collections of electronic bank receipts (RIBA). <sup>4</sup> Collections of commercial bills and paper-based bank receipts.

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Table 13

Indicators of use of various cashless payment instruments: value of transactions¹

(in billions of Italian lire)

Instruments	1991	1992	1993	1994	1995
Cheques issued	2,156,272	2,223,172	2,170,124	2,108,124	2,190,634
Payments by debit and credit cards	11,754	14,291	15,671	19,218	24,718
Paper-based credit transfers	6,330,688	7,191,203	5,596,276	4,709,208	4,331,379
customer initiated <sup>2</sup> interbank/large-value	701,174 5,629,514	745,865 6,445,338	791,095 4,805,181	357,110 4,352,098	386,016 3,945,363
Paperless credit transfers	18,227,933	26,236,791	38,812,084	47,766,143	49,782,294
customer initiated interbank/large-value	3,810,603 14,417,330	4,223,160 22,003,630	4,085,540 34,726,544	4,613,156 43,152,987	4,888,291 44,894,003
Direct debits	61,619	73,741	89,095	106,721	116,309
Others	462,658	468,069	452,127	463,821	534,787
paperless collections <sup>3</sup> paper-based collections <sup>4</sup>	215,684 246,974	249,762 218,307	265,398 186,729	298,930 164,891	400,943 133,844
Total	27,250,924	36,207,267	47,135,377	55,173,235	56,980,121

<sup>&</sup>lt;sup>1</sup> The figures for payment operations effected by banking instruments have been provided by 75 banks accounting for approximately 80% of the current account deposits of the entire banking system. The data on the other payment operations (Banca d'Italia cashier's cheques, postal instruments, credit cards, interbank large-value transfers) relate to the entire system. <sup>2</sup> Customer initiated paper-based transfers include postal money orders and inpayments to postal current accounts that are processed automatically within the Postal System but originate from cash payments at post offices. <sup>3</sup> Collections of electronic bank receipts (RIBA). <sup>4</sup> Collections of commercial bills and paper-based bank receipts.

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Table 14

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

	1991	1992	1993	1994	1995
Members	196	188	190	189	188
of which: live	190	186	187	186	182
Sub-members <sup>1</sup>	28	30	29	32	37
of which: live	24	30	28	32	36
Participants <sup>2</sup>	0	0	0	0	1
of which: live	0	0	0	0	1
Total users	224	218	219	221	226
of which: live	214	216	215	218	219
Memorandum items:					
Total S.W.I.F.T.:					
members	1,963	2,074	2,244	2,551	2,693
sub-members	1,607	1,738	1,887	2,097	2,259
participants	<i>78</i>	91	125	218	277
users	3,648	3,903	4,256	4,866	5,229

 $<sup>^{1}</sup>$  Domestic users sponsored by members abroad.  $^{2}$  Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

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

	1991	1992	1993	1994	1995
Total messages sent	19,203,007	21,144,390	22,572,543	24,681,961	27,584,947
of which:					
category I <sup>1</sup> category II <sup>2</sup>	6,110,992 5,359,223	6,695,298 5,783,865	6,845,876 5,904,935	7,596,603 6,063,052	6,360,220 6,512,180
Total messages received	18,148,442	20,008,765	22,189,826	25,066,961	28,480,765
of which:					
category I <sup>1</sup> category II <sup>2</sup>	•	6,101,945 4,240,352	6,930,817 4,758,663	8,061,681 5,448,679	9,502,849 6,239,393
Domestic traffic <sup>3</sup>	2,944,909	3,465,396	3,751,213	4,235,252	4,959,227
Memorandum item:					
Global S.W.I.F.T. traffic	365,159,291	405,540,962	457,218,200	518,097,873	603,575,374

<sup>&</sup>lt;sup>1</sup> Category I: customer (funds) transfers. <sup>2</sup> Category II: bank (funds) transfers. <sup>3</sup> Messages sent to/received from domestic users.

Source: S.W.I.F.T.

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Table 1 **Basic statistical data** 

	1991	1992	1993	1994	1995
Population (millions) <sup>1</sup>	124.0	124.5	124.8	125.0	125.6
GDP (nominal; JPY trillions)	459.0	471.8	475.4	479.1	480.7
GDP per capita (JPY thousands)	3,700.1	3,791.0	3,810.7	3,831.5	3,828.1
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	125.25 134.59	124.65 126.62	111.89 111.06	99.83 102.18	102.91 93.97

<sup>&</sup>lt;sup>1</sup> As of 1st October.

Sources: Economic Statistics Annual and Economic Statistics Monthly (Bank of Japan).

Table 2 **Settlement media used by non-banks**<sup>1</sup>

(in billions of Japanese yen)

	1991	1992	1993	1994	1995
Notes and coin <sup>2</sup>	36,653.9	36,865.8	39,506.0	40,982.4	44,772.3
Narrow money supply $(M_1)^2$	131,044.1	136,138.0	145,614.6	151,665.3	171,544.1
Broad money supply (M <sub>2</sub> + CDs) <sup>2</sup>	516,346.0	515,484.3	526,839.6	541,419.4	559,283.3
Transferable deposits <sup>3</sup>	122,019.1	118,279.6	117,463.6	121,103.8	122,450.3
of which held by:					
households	43,288.0	44,209.5	45,240.5	48,507.3	53,023.4
corporate sector	73,140.3	68,094.2	66,228.9	66,144.8	63,562.1
other <sup>4</sup>	5,590.8	5,975.9	5,994.2	6,451.7	5,864.8
Postal deposits <sup>5</sup>	12,258.4	12,162.8	12,483.2	13,927.1	15,802.7

<sup>&</sup>lt;sup>1</sup> Not seasonally adjusted. <sup>2</sup> End-year. <sup>3</sup> Demand deposits in yen at city banks, regional banks, regional banks II, trust banks, long-term credit banks and Shinkin banks; end-March. <sup>4</sup> Public sector. <sup>5</sup> Transferable deposits only; end-March.

Sources: Economic Statistics Annual, Economic Statistics Monthly (Bank of Japan) and other national data.

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Table 3 **Settlement media used by banks**<sup>1</sup>

(in billions of Japanese yen)

	1991	1992	1993	1994	1995
Reserve balances held at central bank <sup>2</sup>	2,966.3	2,892.5	2,959.8	3,038.6	3,239.5
of which:					
required reserves	2,962.6	2,889.7	2,956.9	3,035.5	3,226.1
Transferable deposits at banks <sup>3</sup>	8,572.9	9,752.1	8,987.7	9,420.2	8,214.8
Banks' borrowing from central bank <sup>4</sup>	10,267.1	7,218.4	6,070.0	5,991.7	2,390.5

<sup>&</sup>lt;sup>1</sup> Not seasonally adjusted. <sup>2</sup> End-year. <sup>3</sup> Demand deposits in yen at city banks, regional banks, regional banks II, trust banks, long-term credit banks and Shinkin banks; end-March. <sup>4</sup> Banks' total borrowing from the Bank of Japan consisting of (i) discounting of bills and (ii) loans on bills; end-year.

Source: Economic Statistics Annual (Bank of Japan).

Table 4 **Banknotes and coin**(at year-end, not seasonally adjusted, in billions of Japanese yen)

	1991	1992	1993	1994	1995
Total banknotes and coin in circulation	43,318	42,511	45,279	46,626	50,060
Denomination of banknotes:					
10,000 yen	34,787	33,971	36,475	37,663	40,913
5,000 yen	1,844	1,853	1,912	1,947	2,008
1,000 yen	3,069	3,021	3,060	3,093	3,147
500 yen	132	130	129	128	126

Source: Economic Statistics Annual (Bank of Japan).

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Table 5
Institutional framework<sup>1</sup>

Categories	Number of institutions	Number of branches	Number of transferable accounts (millions)	Value of transferable accounts (JPY billions)
Central bank	1	34	0.002	3,239.5
Commercial banks <sup>2</sup>	171	15,156	314.6	112,088.1
Cooperative and rural banks <sup>3</sup>	4,662	32,772	•	35,796.4
Branches of foreign banks	94	145	•	338.2
Post Office	1	24,521	97.7	5,802.7

<sup>&</sup>lt;sup>1</sup> Figures at end-1995 or at end-March 1996 for the institutions other than the Post Office. Figures at end-March 1995 for the Post Office. <sup>2</sup> Domestically licenced banks including city banks, regional banks, regional banks II, long-term credit banks and trust banks (domestic trust banks, trust banks which started operations in October 1993 and thereafter, and foreign trust banks granted trust banking business licences). For the number of transferable accounts, the figures exclude data on the trust banks operating from October 1993 and the foreign trust banks. <sup>3</sup> Including Shinkin banks, credit cooperatives, labour credit associations, agricultural cooperatives, fishery cooperatives, the Norinchukin Bank and the Shoko Chukin Bank.

Sources: Economic Statistics Monthly, Economic Statistics Annual (Bank of Japan), Center for Financial Industry Information Systems and other national data.

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Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1991	1992	1993	1994	1995
Cash dispensers and ATMs:					
Number of networks	27	26	23	22	21
Number of machines <sup>1</sup>	98,599	108,275	116,732	122,250	127,247
Volume of transactions					
$(thousands)^2$	276,378	356,897	407,083	447,381	482,709
Value of transactions (JPY					
$billions)^2$	13,502	16,235	17,874	19,193	20,441
EFTPOS:					
Number of networks <sup>3</sup>	218	240	266	271	256
Number of terminals <sup>3</sup>	26,359	32,816	21,010	28,320	25,061
Volume of transactions					
$(thousands)^4$	701	695	599	801	
Value of transactions (JPY					
billions) <sup>4</sup>	9.8	8.6	12.3	6.6	•

<sup>&</sup>lt;sup>1</sup> End-March. <sup>2</sup> Figures represent interbank transactions only and do not include intrabank transactions. <sup>3</sup> Figures for 1991 include those for city banks, regional banks, regional banks II, Shinkin banks and credit cooperatives. Figures for 1992-95 also include those for labour credit associations. End-year for 1991, end-March 1993, end-March 1994 and end-March 1995 for 1992, 1993, 1994 and 1995 respectively. <sup>4</sup> Figures for 1991 and 1992 are estimated from the transaction volume/value for December 1991 and March 1993 respectively.

Sources: Center for Financial Industry Information Systems, Federation of Bankers Associations of Japan and other national data.

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Table 7

Number of payment cards in circulation
(in thousands)

	1991	1992	1993	1994	1995
Cards with a cash function <sup>1</sup>	201,540	219,930	231,750	244,370	260,830
Cards with a debit/credit function	190,648	209,218	220,738	228,705	237,472
cards with a debit function <sup>2</sup> cards with a credit function <sup>3</sup>	3,688 186,960	5,712 203,000	6,218 214,520	7,965 220,740	9,962 227,510
Cards with a cheque guarantee function <sup>4</sup>					
Retailer cards <sup>3</sup>	44,650	49,600	53,020	55,850	59,160

<sup>&</sup>lt;sup>1</sup> Excludes cards issued by fishery cooperatives and the Post Office; end-March. <sup>2</sup> For 1991 and 1992, end-year. The figure for 1992 is estimated from the data available. For 1993, 1994 and 1995, end-March. <sup>3</sup> End-March. <sup>4</sup> Cards with a cheque guarantee function do not exist in Japan.

Source: Center for Financial Industry Information Systems.

Table 8

Payment instructions handled by selected payment systems: volume of transactions

(in thousands)

	1991	1992	1993	1994	1995
Bill and cheque clearing systems	367,124	350,245	327,866	318,083	305,827
Zengin System	718,274	779,083	826,386	874,290	935,485
Foreign Exchange (Gaitame) Yen Clearing System	6,052	6,118	6,577	7,078	8,839
BOJ-NET	3,634	3,710	3,771	3,854	3,849

Sources: Payment and Settlement Statistics (Bank of Japan), Economic Statistics Annual (Bank of Japan) and other national data.

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Table 9

Payment instructions handled by selected payment systems: value of transactions

(in trillions of Japanese yen)

	1991	1992	1993	1994	1995
Bill and cheque clearing systems	4,037	3,563	3,262	2,770	1,845
Zengin System	1,777	1,725	1,793	1,894	2,067
Foreign Exchange (Gaitame) Yen Clearing System	6,258	6,208	5,951	6,647	7,670
BOJ-NET	33,980	35,892	39,295	40,705	40,847

Sources: Payment and Settlement Statistics (Bank of Japan), Economic Statistics Annual (Bank of Japan) and other national data.

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in thousands)

	1991	1992	1993	1994	1995
Registration system <sup>1</sup>	227.8	275.6	368.0	439.3	598.3
Book-entry system	306.5	391.9	395.9	426.0	486.5
Financing bills	104.6	131.6	126.3	122.5	112.7
Treasury bills	121.5	173.4	159.2	152.0	175.2
Government bonds, etc	80.4	87.0	110.4	151.5	198.6

<sup>&</sup>lt;sup>1</sup> Government bonds only.

Sources: Payment and Settlement Statistics (Bank of Japan) and other national data.

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Table 11

Transfer instructions handled by securities settlement systems:
value of transactions

(in trillions of Japanese yen)

	1991	1992	1993	1994	1995
Registration system <sup>1</sup>	1,012.4	876.8	1,116.1	1,192.4	1,636.7
Book-entry system	1,253.0	2,021.3	2,504.9	2,182.7	2,511.8
Financing bills Treasury bills Government bonds, etc	536.2 533.9 182.9	710.8 1,035.3 275.2	797.1 1,303.4 404.4	706.0 961.1 515.6	706.7 1,144.2 660.9

<sup>&</sup>lt;sup>1</sup> Government bonds only.

Sources: Payment and Settlement Statistics (Bank of Japan) and other national data.

Table 12

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

(in millions)

Instruments	1991	1992	1993	1994	1995
Bills and cheques cleared <sup>1</sup>	367.1	350.2	327.9	318.1	305.8
Payments by credit card	•	366.2	362.8	449.2	
Paper-based credit transfers <sup>2</sup>	645.2	693.1	751.4	808.6	942.8
Paperless credit transfers	685.2	740.6	788.0	836.5	899.4
customer initiated <sup>3</sup> interbank/large-value <sup>4</sup>	676.4 8.7	731.7 8.9	778.3 9.7	826.2 10.3	887.4 12.0
Direct debits <sup>5</sup>	1,706.6			•	
Total	•			•	

<sup>&</sup>lt;sup>1</sup> Transactions cleared through bill and cheque-clearing houses. <sup>2</sup> Comprising paper-based transfers through the Domestic Funds Transfer System and the Post Office. Estimated. <sup>3</sup> Transactions through the Zengin System (excluding paper-based transfers). <sup>4</sup> Transactions through BOJ-NET and the Foreign Exchange (Gaitame) Yen Clearing System. <sup>5</sup> Direct debits for five major public utility charges (electricity, gas, water, telephone and television).

Sources: Economic Statistics Annual (Bank of Japan), Federation of Bankers Associations of Japan, Japan Consumer Credit Industry Association and other national data.

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Table 13

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

(in trillions of Japanese yen)

Instruments	1991	1992	1993	1994	1995
Bills and cheques cleared <sup>1</sup>	4,037.5	3,563.5	3,262.4	2,769.9	1,845.1
Payments by credit card	11.8	12.8	12.6	12.5	13.3
Paper-based credit transfers <sup>2</sup>	53.6	47.7	44.4	43.1	50.0
Paperless credit transfers	37,906.5	39,979.9	43,894.9	46,967.0	46,968.4
customer initiated <sup>3</sup>	1,706.3	1,667.3	1,794.1	1,870.5	2,043.9
interbank/large-value <sup>4</sup>	36,200.2	38,312.6	42,100.8	45,096.5	44,924.5
Direct debits <sup>5</sup>	•				
Total	•	•	•	•	•

<sup>&</sup>lt;sup>1</sup> Transactions cleared through bill and cheque-clearing houses. <sup>2</sup> Comprising paper-based transfers through the Domestic Funds Transfer System and the Post Office. Estimated. <sup>3</sup> Transactions through the Zengin System (excluding paper-based transfers). <sup>4</sup> Transactions through BOJ-NET and the Foreign Exchange (Gaitame) Yen Clearing System. <sup>5</sup> Direct debits for five major public utility charges (electricity, gas, water, telephone and television).

Sources: Economic Statistics Annual (Bank of Japan), Federation of Bankers Associations of Japan, Ministry of International Trade and Industry and other national data.

- 63 - *Japan* 

Table 14

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

	1991	1992	1993	1994	1995
Members	110	112	116	127	130
of which: live	109	110	114	127	130
Sub-members <sup>1</sup>	70	73	78	84	91
of which: live	68	70	76	83	91
Participants <sup>2</sup>	7	8	7	8	12
of which: live	6	7	6	7	10
Total users	187	193	201	219	233
of which: live	183	187	196	217	231
Memorandum items:					
Total S.W.I.F.T.:					
memberssub-members	1,963 1,607	2,074 1,738	2,244 1,887	2,551 2,097	2,693 2,259
participantsusers	78 3,648	91 3,903	125 4,256	218 4,866	277 5,229

<sup>&</sup>lt;sup>1</sup> Domestic users sponsored by members abroad. <sup>2</sup> Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

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

	1991	1992	1993	1994	1995
Total messages sent	15,983,025	17,794,807	19,566,216	21,843,420	24,748,540
of which:					
category I <sup>1</sup>	3,654,591	4,206,763	4,462,919	4,728,927	5,253,371
category II <sup>2</sup>	4,854,475	4,923,671	4,963,253	5,023,849	5,374,359
Total messages received	16,062,497	17,244,547	18,812,497	20,444,154	23,487,782
of which:					
category I <sup>1</sup>		2,263,207	2,498,926	2,695,175	3,004,009
category II <sup>2</sup>	•	5,739,005	6,182,981	6,568,628	7,326,157
Domestic traffic <sup>3</sup>	2,254,694	2,363,060	2,519,129	2,562,869	2,989,029
Memorandum item:					
Global S.W.I.F.T. traffic	365,159,291	405,540,962	457,218,200	518,097,873	603,575,374

 $<sup>^1</sup>$  Category I: customer (funds) transfers.  $^2$  Category II: bank (funds) transfers.  $^3$  Messages sent to/received from domestic users.

Source: S.W.I.F.T.

- 65 - Netherlands

Table 1 **Basic statistical data** 

	1991	1992	1993	1994	1995
Population (millions):					
year-end	15.1	15.2	15.3	15.4	15.5
GDP (NLG billions)	542.6	566.1	579.0	608.4	635.4
GDP per capita	36,010	37,288	37,868	39,555	41,105
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	1.71 1.87	1.81 1.76	1.94 1.86	1.74 1.82	1.60 1.61

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of Dutch guilders)

	1991	1992	1993	1994	1995
Notes and coin	37.0	37.0	37.6	38.1	38.2
Transferable deposits	92.3	98.1	112.1	114.1	134.7
of which held by:					
persons	40.4	41.6	45.6	47.0	51.7
corporate sector	42.3	45.1	53.9	54.5	65.2
other	9.6	11.3	12.6	12.6	17.8
Narrow money supply					
(M <sub>1</sub> )	129.3	135.1	149.6	152.2	172.9
Broad money supply	406.6	431.5	464.5	466.0	486.6

- 66 - Netherlands

Table 3

Settlement media used by banks
(at year-end, in millions of Dutch guilders)

	1991	1992	1993	1994	1995
Reserve balances held at central bank <sup>1</sup>	2,915	17,557	19,985	19,408	9,785
Transferable deposits at other institutions (thousands)	2,768	1,906	3,118	2,462	3,061
Memorandum items:					
Required reserves	0	12,484	15,783	11,361	0
Institutions' borrowing from central bank	2,799	5,041	4,160	8,022	9,748

 $<sup>^{1}</sup>$  Reserve balances also include "Required reserves" and "Institutions borrowing from central bank", although from the administrative point of view they are considered to be overdrafts instead of balances.

- 67 - Netherlands

Table 4

Banknotes and coin

(at year-end, not seasonally adjusted, in billions of Dutch guilders)

	1991	1992	1993	1994	1995
Total banknotes and coin issued	39.9	39.9	40.4	40.9	41.3
1,000       guilders         250       guilders         100       guilders         50       guilders         25       guilders         10       guilders         5       guilders	4.2 13.6 1.5 1.7 0.7	15.1 4.3 13.8 1.6 1.7 0.7	15.5 4.7 13.4 1.7 1.7 0.8 0.1	15.8 5.0 13.2 1.8 1.8 0.8 0.1	14.9 5.2 13.8 1.9 1.8 0.8 0.0
Banknotes held by credit institutions	2.9	2.9	2.8	2.8	3.1
Total banknotes outside credit institutions	37.0	37.0	37.6	38.1	38.2

Table 5

Institutional framework
(at end-1995)

Categories	Number of institutions	Number of branches	Number of accounts (millions)	Value of accounts (NLG billions)
Central bank	1	11		•
Commercial banks	98	2,453	6.8	74.0
Savings banks	26	26	0.1	0.2
Cooperative and rural banks	1	1,879	5.4	38.5
Postbank	1	2,132	6.7	22.0
Memorandum item:				
Branches of foreign banks	25	•	•	•

- 68 - Netherlands

Table 6
Cash dispensers, ATMs and EFTPOS terminals

	1991	1992	1993	1994	1995
Cash dispensers and ATMs:					
Number of networks	2	2	2	2	2
Number of machines	3,354	3,964	4,461	4,998	5,489
Volume of transactions (millions)  Value of transactions (NLG	207	262	314	367	425
billions)	36	45	56	65	74
EFTPOS:					
Number of networks	2	2	1	1	1
Number of terminals	4,038	11,440	24,549	47,588	73,376
Volume of transactions (millions)  Value of transactions (NLG	32	47	67	126	256
billions)	1.8	3.8	7.3	14.4	24.3

Table 7

Number of payment cards in circulation<sup>1</sup>

(at year-end, in thousands)

	1991	1992	1993	1994	1995
Cards with a cash function	9,273	12,538	13,107	13,988	16,419
Cards with a debit/credit function	1,950	1,500	1,257	1,257	1,493
cards with a debit function cards with a credit function		1,500 ·	1,257 ·	1,257 ·	1,493 ·
Cards with a cheque guarantee function	2,213	1,765	1,796	1,297	724
Retailer cards	•	•	•	•	•

<sup>&</sup>lt;sup>1</sup> A multi-function card may appear in several categories. It is, therefore, not meaningful to add the figures.

- 69 - Netherlands

 ${\bf Payment\ instructions\ handled\ by\ selected\ payment\ systems:}$   ${\bf volume\ of\ transactions}$ 

(in millions)

	1991	1992	1993	1994	1995
Interpay <sup>1</sup> of which:	992.6	1,045.8	1,130.5	1,225.4	1,410.9
chequesother	110.5 882.1	91.7 954.1	71.9 1,058.6	55.8 1,169.6	40.5 1,370.4
8007 S.W.I.F.T	2.0	1.8	1.9	2.0	2.1
Central bank current account system (FA)	0.5	0.5	0.4	0.4	0.4

<sup>&</sup>lt;sup>1</sup> Former BankGiroCentrale.

Table 9

Payment instructions handled by selected payment systems: value of transactions

(in billions of Dutch guilders)

	1991	1992	1993	1994	1995
Interpay <sup>1</sup> of which:	1,851.8	1,942.0	2,207.4	2,195.0	2,189.1
chequesother	16.2 1,835.6	15.0 1,927.0	11.7 2,195.7	9.2 2,185.8	6.7 2,182.4
8007 S.W.I.F.T	7,862.0	8,055.0	9,011.0	10,139.7	10,340.7
Central bank current account system (FA)	6,694.2	7,658.5	9,300.1	9,182.5	8,450.4

<sup>&</sup>lt;sup>1</sup> Former BankGiroCentrale.

- 70 - Netherlands

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in millions)

	1991	1992	1993	1994	1995
NECIGEF	1.159	1.193	1.323	1.145	1.028
Central bank clearing institute	0.002	0.003	0.002	0.002	0.003

Table 11

Transfer instructions handled by securities settlement systems: value of transactions

(in billions of Dutch guilders)

	1991	1992	1993	1994	1995
NECIGEF		•			
Central bank clearing institute	38.0	48.5	48.4	79.0	100.1

Table 12

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

(in millions)

Instruments	1991	1992	1993	1994	1995
Cheques	247.0	221.9	180.5	144.8	109.9
Credit and debit cards	32.0	46.6	91.7	192.7	373.3
Paper-based credit transfers	98.0	105.0	101.4	79.1	76.1
customer initiated interbank/large value	98.0 0.0	105.0 0.0	101.4 0.0	79.1 0.0	76.1 0.0
Paperless credit transfers	963.0	1,003.1	1,382.2	1,481.0	1,583.9
customer initiatedinterbank/large value	960.5 2.5	1,000.8 2.3	1,379.9 2.3	1,478.6 2.4	1,581.4 2.5
Direct debits	392.0	431.4	479.5	531.0	597.5
Total	1,732.0	1,808.0	2,235.3	2,428.6	2,740.7

- 71 - Netherlands

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

(in billions of Dutch guilders)

Instruments	1991	1992	1993	1994	1995
Cheques	33.0	32.0	25.9	21.0	16.1
Credit and debit cards	2.0	3.8	10.0	21.6	36.3
Paper-based credit transfers	45.0	48.0	36.5	26.4	24.8
customer initiated interbank/large value	45.0 0.0	48.0 0.0	36.5 0.0	26.4 0.0	24.8 0.0
Paperless credit transfers	17,032.0	18,741.2	21,188.1	22,195.0	21,635.5
customer initiatedinterbank/large value	2,475.8 14,556.2	3,027.7 15,713.5	2,877.0 18,311.1	2,872.9 19,322.2	2,844.4 18,791.1
Direct debits	246.0	226.0	229.8	239.8	259.8
Total	17,358.0	19,051.0	21,490.2	22,503.8	21,972.5

- 72 - Netherlands

Table 14

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

	1991	1992	1993	1994	1995
Members	30	29	30	29	30
of which: live	26	29	29	27	28
Sub-members <sup>1</sup>	23	25	28	28	32
of which: live	21	23	26	28	32
Participants <sup>2</sup>	1	1	1	0	2
of which: live	0	0	0	0	2
Total users	54	55	59	57	64
of which: live	47	52	55	55	62
Memorandum items:					
Total S.W.I.F.T.:					
members	1,963	2,074	2,244	2,551	2,693
sub-members	1,607	1,738	1,887	2,097	2,259
participants	<i>78</i>	91	125	218	277
users	3,648	3,903	4,256	4,866	5,229

 $<sup>^{1}</sup>$  Domestic users sponsored by members abroad.  $^{2}$  Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

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

	1991	1992	1993	1994	1995
Total messages sent	12,944,496	13,547,572	14,543,442	15,253,565	16,903,885
of which:					
category I <sup>1</sup>	6,071,972	6,310,685	6,474,480	6,508,032	6,747,310
category II <sup>2</sup>	2,790,345	2,733,648	2,912,403	3,107,787	3,275,847
Total messages received	12,158,421	12,865,625	13,983,712	14,538,364	16,027,297
of which:					
category I <sup>1</sup>		4,941,606	5,169,497	5,279,922	5,498,322
category II <sup>2</sup>	•	1,921,436	2,066,993	2,081,037	2,204,721
Domestic traffic <sup>3</sup>	1,419,578	1,763,389	1,996,747	1,750,991	1,870,671
Memorandum item:					
Global S.W.I.F.T. traffic	365,159,291	405,540,962	457,218,200	518,097,873	603,575,374

 $<sup>^1</sup>$  Category I: customer (funds) transfers.  $^2$  Category II: bank (funds) transfers.  $^3$  Messages sent to/received from domestic users.

Source: S.W.I.F.T.

- 73 - Sweden

Table 1 **Basic statistical data** 

	1991	1992	1993	1994	1995
Population (millions):					
average	8.62	8.67	8.72	8.79	8.83
GDP (SEK billions)	1,447.3	1,441.7	1,442.2	1,517.0	1,634.9
GDP per capita	167,900	166,286	165,390	172,583	185,153
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	5.5500 6.0587	7.0500 5.8123	8.3325 7.8015	7.4615 7.7126	6.6177 7.1372

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of Swedish kronor)

	1991	1992	1993	1994	1995
Notes and coin	64.8	64.3	67.1	68.8	68.5
Transferable deposits	563.0	589.2	612.5	638.8	655.3
of which held by:					
households	384.8	374.2	376.4	388.5	385.3
corporate sector	167.4	199.9	213.9	229.8	252.9
other <sup>1</sup>	10.8	15.1	22.2	20.5	17.1
Other <sup>2</sup>	34.0	29.3	30.5	4.7	8.0
Narrow money supply (M <sub>1</sub> )					
Memorandum item:					
Broad money supply (M <sub>3</sub> ) .	661.8	682.8	710.1	712.3	731.8

<sup>&</sup>lt;sup>1</sup> Local government. <sup>2</sup> Postal giro accounts and certificates of deposit.

- 74 - Sweden

Table 3 **Settlement media used by credit/deposit-taking institutions**(in billions of Swedish kronor)

	1991	1992	1993	1994	1995
Reserve balances held at central bank <sup>1</sup>	6.5	8.9	12.6	2.4	1.9
of which: required reserves	2.9	2.8	5.3		
Transferable deposits at other institutions	124.1	34.1	34.2	45.3	52.8
Other <sup>2</sup>	0.8	1.5	1.1	•	•
Memorandum item:					
Institutions' borrowing from central bank <sup>3</sup>	0.0	0.0	0.0	0.0	0.0

<sup>&</sup>lt;sup>1</sup> Including money market operations and borrowing under special facilities. <sup>2</sup> Deposits on postal giro accounts. <sup>3</sup> In the Riksbank Act there is a provision which allows the Riksbank to lend to banks and other financial institutions for reasons other than monetary policy, i.e. for liquidity purposes. This happened for the first time in September 1992. The figures refer to the situation at the end of the year.

- 75 - Sweden

Table 4 **Banknotes and coin**(in millions of Swedish kronor)

	1991	1992	1993	1994	1995
Total banknotes and coin outstanding	76,098	73,945	75,722	76,442	76,660
Denomination of banknotes:					
10,000       kronor         1,000       kronor         500       kronor         100       kronor         50       kronor         20       kronor         10       kronor         5       kronor	170 41,091 14,733 14,669 1,035 1,313	19 39,299 15,711 13,354 817 1,011 433 96	0 39,803 18,384 12,001 261 1,525 345 95	0 39,569 19,903 11,298 205 1,608 315 94	0 37,841 22,316 10,649 185 1,679 300 94
Banknotes held by credit institutions	11,543 61,565	9,894 60,846	8,919 63,495	7,848 65,144	8,357 64,707

- 76 - Sweden

Table 5
Institutional framework
(at end-1995)

Categories	Number of institutions	Number of branches	Number of accounts (millions)	Value of accounts (SEK billions)
Central bank	1	15	•	•
Commercial banks <sup>1</sup>	19	3,528	24.41	715.6
Savings banks <sup>2</sup>	89	349	3.11	55.9
Memorandum item:  Branches of foreign banks	9	9	0.00	3.0

<sup>&</sup>lt;sup>1</sup> In 1991 the twelve cooperative regional banks merged into one unit. In 1992 this unit was transformed into a banking company and included in the commercial bank sector. The Postgirot Bank is included from March 1994. Through an agreement with the Post Office, the Postgirot Bank can use the 1,289 branches of the Post Office for marketing their financial services. <sup>2</sup> In late 1992 the sector's former commercial bank, Sparbankernas Bank, together with eleven large savings banks, formed a new bank, Sparbanken Sverige AB, which at the end of the year accounted for about 80% of the sector's total balance sheet.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1991	1992	1993	1994	1995
Cash dispensers and ATMs:					
Number of networks	2	2	2	2	2
Number of machines	2,221	2,203	2,226	2,281	2,359
Volume of transactions					
(millions)	208	218	247	270	281
Value of transactions (SEK					
billions)	152	163	195	218	226
EFTPOS:					
Number of networks <sup>1</sup>	2	2	2	2	2
Number of terminals	8,916	14,276	26,634	48,466	54,389
Volume of transactions				·	
(millions)	33	46	57	80	92
Value of transactions (SEK					
billions)	17	27	38	46	53

 $<sup>^{1}</sup>$  Terminals administrated by BABS and SERVO, two bank-owned companies which collect and redeem transactions for card issuers.

- 77 - Sweden

Table 7

Number of payment cards in circulation<sup>1</sup>

(in thousands)

	1991	<b>1992</b> <sup>2</sup>	1993	1994	1995
Cards with a cash function		4,960	5,162	6,037	6,171
Cards with a debit/credit function <sup>3</sup> of which:	3,769	10,463	11,412	12,076	4,742
cards with a debit function cards with a credit	2,352	8,946	9,937	10,379	3,525
function	1,417	1,517	1,475	1,697	1,217
Cards with a cheque guarantee function					
Retailer cards	4,984	7,245	7,961	9,121	

<sup>&</sup>lt;sup>1</sup> A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures. <sup>2</sup> From 1992, new source of statistics. <sup>3</sup> Total number of payment cards in Sweden up to and including 1994. From 1995, cards issued by oil companies and retail trade companies are not included.

Table 8

Payment instructions handled by selected payment systems: volume of transactions

(in thousands)

	1991	1992	1993	1994	1995
Data Clearing (retail clearing) <sup>1</sup> of which:	151,434	141,436	127,784	120,957	112,807
truncated chequesother	108,299 43,135	98,972 42,464	86,100 41,684	78,983 41,974	66,619 46,188
The RIX system <sup>2</sup> of which:	91	79	78	84	119
interbank (large-value) transactionsthird-party transactions	25	28	24	21	21
("clearing transactions")	66	51	54	63	98

<sup>&</sup>lt;sup>1</sup> The Data Clearing is managed by the Bank Giro Centre. Calculated bilateral net amounts are reported back to participants and settled via the Riksbank's RIX system. <sup>2</sup> Up to 1989, clearing and settlement were carried out on a bilateral net basis. Since 1990 RIX has been operating on a gross basis.

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Table 9 **Payment instructions handled by selected payment systems: value of transactions** 

(in billions of Swedish kronor)

	1991	1992	1993	1994	1995
Data Clearing (retail clearing) <sup>1</sup> of which:	19,167	17,920	20,510	9,617	3,850
truncated chequesother	18,741 426	17,546 374	20,120 390	9,204 413	3,395 455
The RIX system of which:	37,634	44,520	40,898	39,920	53,591
interbank (large-value) transactionsthird-party transactions	17,502	23,461	16,836	14,101	15,345
("clearing transactions")	20,132	21,059	24,062	25,819	38,246

<sup>&</sup>lt;sup>1</sup> The Data Clearing is managed by the Bank Giro Centre. Calculated bilateral net amounts are reported back to participants and settled via the Riksbank's RIX system. <sup>2</sup> Since 1990 RIX has been operating on a gross basis. Total daily payments in the RIX system averaged S.kr. 160 billion during 1995.

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in thousands)

	1991	1992	1993	1994	1995
VPC:1					
of which:					
government securities equities	•	•	149 2,000	500 2,500	498 2,414

<sup>&</sup>lt;sup>1</sup> Värdepapperscentralen AB (Swedish Securities Register Centre). Government and mortgage securities have been included in the VP book-entry system since mid-1993. Therefore the figures refer to the second half of 1993 only. The figures include all transactions between accounts within VPC. The number of trades generating these transactions are, however, considerably lower. The number of actual trades in equities and government securities is only about one-sixth and one-half respectively. The figures in the table have been adjusted accordingly. Included under "equities" are also some private and corporate bonds.

- 79 - Sweden

Table 11

Transfer instructions handled by securities settlement systems: value of transactions

(in billions of Swedish kronor)

	1991	1992	1993	1994	1995
VPC:1					
of which:					
government securities <sup>2</sup> equities				46,000 1,055	40,428 1,119

<sup>&</sup>lt;sup>1</sup> Värdepapperscentralen AB (Swedish Securities Register Centre). <sup>2</sup> Government and mortgage securities have been included in the VP book-entry system since mid-1993. Therefore the figures refer to the second half of 1993 only.

Table 12

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

(in millions)

Instruments	1991	1992	1993	1994	1995
Cheques issued <sup>1</sup>	77	76	•	•	
Payments by debit and credit cards	68	62	68	97	111
Paper-based credit transfers	210	165	161	170	189
customer initiated interbank/large-value					
Paperless credit transfers	388	425	428	435	431
customer initiated interbank/large-value					
Direct debits	34	37	40	45	50
Total	777	765	697	747	781

<sup>&</sup>lt;sup>1</sup> From 1993 no data available.

- 80 - Sweden

Table 13

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

(in billions of Swedish kronor)

Instruments	1991	1992	1993	1994	1995
Cheques issued <sup>1</sup>	757	675	•	•	
Payments by debit and credit cards	43	44	53	79	91
Paper-based credit transfers  customer initiated  interbank/large-value	1,980	2,115	2,230	1,933	1,946
Paperless credit transfers	3,674	3,380	3,587	4,282	4,405
Direct debits	203	152	205	183	194
Total	6,657	6,366	6,075	6,477	6,636

<sup>&</sup>lt;sup>1</sup> From 1993 no data available.

Table 14

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

	1991	1992	1993	1994	1995
Members	11	11	10	9	9
of which: live	10	10	10	8	8
Sub-members <sup>1</sup>	9	9	9	9	12
of which: live	9	9	9	9	11
Participants <sup>2</sup>	0	0	0	0	2
of which: live	0	0	0	0	1
Total users	20	20	19	18	23
of which: live	19	19	19	17	20
Memorandum items:					
Total S.W.I.F.T.:					
memberssub-members	1,963 1,607	2,074 1,738	2,244 1,887	2,551 2.097	2,693 2,259
participantsusers	78 3,648	91 3,903	125 4,256	218 4,866	277 5,229

 $<sup>^{1}</sup>$  Domestic users sponsored by members abroad.  $^{2}$  Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

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Table 15
S.W.I.F.T. message flows to/from domestic users<sup>1</sup>

	1991	1992	1993	1994	1995
Total messages sent	6,701,761	7,088,941	7,447,346	8,701,454	10,019,610
of which:					
category I <sup>1</sup>	2,653,863	2,810,225	2,915,188	3,335,280	3,816,919
category II <sup>2</sup>	1,788,521	1,797,251	1,863,230	2,029,226	2,223,462
Total messages received	5,766,385	5,879,573	6,040,394	7,021,354	7,971,173
of which:					
category I <sup>1</sup>		1,980,723	2,136,086	2,427,632	2,833,733
category II <sup>2</sup>	•	1,482,130	1,566,639	1,925,165	2,104,694
Domestic traffic <sup>3</sup>	1,055,822	994,931	984,831	1,213,723	1,455,832
Memorandum item:					
Global S.W.I.F.T. traffic	365,159,291	405,540,962	457,218,200	518,097,873	603,575,374

 $<sup>^{1}</sup>$  Category I: customer (funds) transfers.  $^{2}$  Category II: bank (funds) transfers.  $^{3}$  Messages sent to/received from domestic users.

Source: S.W.I.F.T.

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Table 1 **Basic statistical data** 

	1991	1992	1993	1994	1995
Population (thousands):					
year-end average	6,842.8 6,873.0	6,908.0 6,943.0	6,968.6 6,989.0	7,019.0 7,036.9	7,060.4 7,079.5
GDP (CHF billions)	331.1	338.8	342.9	351.9	362.0
GDP per capita	48,386.6	49,044.6	49,220.8	50,138.2	51,271.9
Exchange rate (domestic currency vis-à-vis USD):					
year-end (December average) average	1.3877 1.4353	1.4220 1.4036	1.4640 1.4775	1.3289 1.3660	1.1639 1.1817

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of Swiss francs)

	1991	1992	1993	1994	1995
Notes and coin	26.30	26.85	26.96	27.84	27.89
Transferable deposits <sup>1</sup>	52.78	54.04	59.57	63.42	68.69
Narrow money supply $(M_1)^2$	120.75	124.06	136.59	141.40	155.24
Memorandum item:					
Broad money supply $(M_3)^2$ .	374.55	381.11	400.11	415.02	427.00

<sup>&</sup>lt;sup>1</sup> Sight deposits in Swiss francs. <sup>2</sup> New definition (1995).

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Table 3

Settlement media used by credit/deposit-taking institutions
(at year-end, in billions of Swiss francs)

	1991	1992	1993	1994	1995
Reserve balances held at central bank <sup>1</sup>	4.16	4.54	4.73	4.20	4.87
Transferable deposits at other institutions	18.17	18.29	22.82	17.93	19.44
Transferable deposits at PTT (Post Office)	1.39	1.78	1.71	1.45	1.33
Memorandum items:					
Required reserves <sup>2</sup>	5.55	5.81	5.81	5.75	5.82
Institutions' borrowing from central bank <sup>3</sup>	0.11	0.03	0.01	0.01	0.01

 $<sup>^1</sup>$  Figures at year-end are peak values; average figures are as follows (in billions): 1991: 2.83, 1992: 2.55, 1993: 2.65, 1994: 2.68, 1995: 2.57.  $^2$  Cash liquidity (cash, deposits with the Swiss National Bank and the PTT).  $^3$  Lombard credits.

Table 4 **Banknotes and coin**(at year-end, not seasonally adjusted, in millions of Swiss francs)

	1991	1992	1993	1994	1995
Total banknotes and coin issued	31,270.2	31,359.6	31,374.8	32,634.6	33,009.1
Denomination of banknotes:					
1,000 francs	13,263.0	13,501.9	13,584.9	14,504.6	14,568.5
500 francs	3,912.0	3,782.5	3,748.0	3,835.3	3,848.9
100 francs	9,089.1	9,059.0	8,926.8	9,058.6	9,187.1
50 francs	1,371.6	1,401.9	1,425.1	1,463.6	1,586.9
20 francs	1,000.7	1,017.9	1,044.9	1,065.6	1,080.2
10 francs	571.7	581.3	596.9	608.4	611.6
Coin	2,062.1	2,015.1	2,048.2	2,098.5	2,125.9
Banknotes held by credit institutions (incl. PTT)	4,696.2	4,375.6	4,462.5	4,815.0	5,125.2
Total banknotes and coin outside credit institutions	26,574.0	26,984.0	26,912.3	27,819.6	27,883.9

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Table 5
Institutional framework
(at end-1995)

Categories	Number of institutions	Number of branches	Number of accounts	Value of accounts (CHF billions)
Central bank	1	10 <sup>1</sup>	764	4.87
Credit institutions	382	3,727		52.29
Post Office	1	3,646	1,610,657	15.69
Memorandum item:  Foreign banks	14	24		0.18
1 oroign ounks	14	24	•	0.16

<sup>&</sup>lt;sup>1</sup> Including two head offices.

Table 6
Cash dispensers, ATMs and EFTPOS terminals

	1991	1992	1993	1994	1995
Cash dispensers and ATMs:					
Number of networks <sup>1</sup>	2	2	2	2	2
Number of machines	2,371	2,669	3,062	3,380	3,753
Volume of transactions <sup>2,3</sup>	45.50	51.50	57.67	64.02	72.54
Value of transactions <sup>2,4</sup>	14.67	16.27	17.71	19.05	20.75
EFTPOS:					
Number of networks <sup>5</sup> Number of terminals: <sup>6</sup>	2	2	2	2	2
ec-Direct	4,763	7,054	9,989	16,140	24,191
Postomat-Plus	2,281	4,273	8,367	16,702	24,703
Volume of transactions <sup>3</sup>	13.60	19.40	27.95	39.85	56.73
Value of transactions <sup>4</sup>	0.80	1.41	2.43	4.02	6.46

<sup>&</sup>lt;sup>1</sup> Bancomat and Postomat system. <sup>2</sup> Only transactions through a central processor. <sup>3</sup> In millions. <sup>4</sup> In billions of Swiss francs. <sup>5</sup> ec-DIRECT and Postomat-Plus. <sup>6</sup> Most of the terminals can be used by both networks.

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Table 7

Number of payment cards in circulation
(at year-end, in thousands)

	1991	1992	1993	1994	1995
Cards with a debit/credit function	4,147	4,547	5,115	5,615	6,064
of which:					
cards with a debit function cards with a credit	2,383	2,691	3,165	3,454	3,716
function	1,518	1,706	1,828	2,059	2,263
function <sup>1</sup>	3,184	3,783	4,359	4,913	5,610
Cards with a cheque guarantee function	2,629	2,840	3,286	3,557	3,846
Retailer cards		•			

<sup>&</sup>lt;sup>1</sup> Cash withdrawals at ATMs.

 $\begin{tabular}{ll} Table~8 \\ \begin{tabular}{ll} Payment~instructions~handled~by~selected~interbank~payment~systems:\\ &volume~of~transactions \\ \end{tabular}$ 

(in millions)

	1991	1992	1993	1994	1995
SIC (Swiss Interbank Clearing)	65.2	64.3	67.4	88.7	96.0
Payments on data media or file transfer <sup>1</sup>	46.0	56.7	65.5	71.8	80.4
Cheques	15.5	13.0	9.8	7.9	6.3

<sup>&</sup>lt;sup>1</sup> Includes DTA (data media exchange facility) and LSV (direct debit procedure).

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Table 9

Payment instructions handled by selected interbank payment systems: value of transactions

(in billions of Swiss francs)

	1991	1992	1993	1994	1995
SIC (Swiss Interbank Clearing)	30,431.0	33,369.0	34,126.0	33,254.2	32,184.0
Payments on data media or file transfer <sup>1</sup>		•	•	252.5	281.2
Cheques	55.3	46.9	36.5	30.7	25.7

<sup>&</sup>lt;sup>1</sup> Includes DTA (data media exchange facility) and LSV (direct debit procedure).

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in millions)

	1991	1992	1993	1994	1995
SEGA:1					
Deliveries against payment	3.29	3.38	4.20	3.89	3.57
Deliveries free of payment .	0.46	0.44	0.42	0.41	0.39

<sup>&</sup>lt;sup>1</sup> The Swiss Securities Clearing Company.

Table 11

Transfer instructions handled by securities settlement systems: value of transactions

(in billions of Swiss francs)

	1991	1992	1993	1994	1995
SEGA <sup>1</sup>	342.1	385.8	654.0	715.7	888.3

<sup>&</sup>lt;sup>1</sup> The Swiss Securities Clearing Company.

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Table 12

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

(in millions)

Instruments	1991	1992	1993	1994	1995
Through banks:1					
Cheques issued <sup>2</sup>	22.0	19.2	15.4	13.1	11.3
Payments by debit and credit cards <sup>3</sup>	38.7	49.4	60.9	75.3	89.4
Paperless credit transfers <sup>4</sup>	101.8	110.0	119.8	144.6	157.6
Direct debits	9.3	11.0	13.2	16.0	18.8
Total	171.8	189.5	209.3	249.0	277.1
Through the PTT:					
Payments by debit cards <sup>5</sup>	0.8	2.1	4.4	7.7	14.1
Transfers (paper-based and paperless credit transfers, direct debits) <sup>6</sup>	236.0	245.6	258.7	255.0	276.3
Total	236.8	247.7	263.1	262.7	290.4
Grand total	408.6	437.2	472.4	511.7	567.5

 $<sup>^1</sup>$  Intrabank payments are not included.  $^2$  Eurocheques, bank cheques and Swiss Bankers Travellers Cheques.  $^3$  Eurocheque card, American Express, Eurocard, VISA and Diners Club; partly estimated.  $^4$  SIC and banks' data media exchange system.  $^5$  POSTCARD.  $^6$  Detailed figures are not published by the PTT.

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

(in billions of Swiss francs)

Instruments	1991	1992	1993	1994	1995
Through banks:1					
Cheques issued <sup>2</sup>	56.11	47.71	37.21	31.36	26.34
Payments by debit and credit cards <sup>3</sup>	6.79	8.43	10.57	12.74	14.87
Paperless credit transfers <sup>4</sup>	30,431.00	33,369.00	34,126.00	33,476.89	32,428.90
Direct debits		•	•	29.77	36.30
Total	30,493.90	33,425.14	34,173.78	33,550.76	32,506.41
Through the PTT:					
Payments by debit cards <sup>5</sup>	0.06	0.13	0.30	0.68	1.76
Transfers (paper-based and paperless credit transfers, direct debits) <sup>6</sup>	1,041.95	1,107.25	1,124.47	1,128.85	1,161.67
Total	1,042.01	1,107.38	1,124.77	1,129.53	1,163.43
Grand total	31,535.91	34,532.52	35,298.55	34,680.29	33,669.84

<sup>&</sup>lt;sup>1</sup> Intrabank payments are not included. <sup>2</sup> Eurocheques, bank cheques and Swiss Bankers Travellers Cheques. <sup>3</sup> Eurocheque card, American Express, Eurocard, VISA and Diners Club; partly estimated. <sup>4</sup> Until 1993, only SIC; since 1994, SIC and banks' data media exchange system. <sup>5</sup> POSTCARD. <sup>6</sup> Detailed figures are not published by the PTT.

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Table 14

Participation in S.W.I.F.T. by domestic institutions<sup>1</sup>

	1991	1992	1993	1994	1995
Members	109	117	119	124	126
of which: live	101	113	115	122	120
Sub-members <sup>2</sup>	53	57	61	65	68
of which: live	52	53	60	62	67
Participants <sup>3</sup>	5	5	6	10	12
of which: live	2	2	3	8	10
Total users	167	179	186	199	206
of which: live	155	168	178	192	197
Memorandum items:					
Total S.W.I.F.T.:					
memberssub-members	1,963 1,607	2,074 1,738	2,244 1,887	2,551 2,097	2,693 2,259
participants	78 3,648	91 3,903	125 4,256	218 4,866	277 5,229

<sup>&</sup>lt;sup>1</sup> Data for Switzerland and Liechtenstein. <sup>2</sup> Domestic users sponsored by members abroad. <sup>3</sup> Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15 S.W.I.F.T. message flows to/from domestic users<sup>1</sup>

	1991	1992	1993	1994	1995
Total messages sent	26,442,633	28,835,267	30,961,709	33,910,798	35,748,763
of which:					
category I <sup>2</sup>	7,644,180	7,912,899	8,024,796	8,648,770	9,247,470
category II <sup>3</sup>	7,946,117	8,424,164	8,639,285	8,874,142	9,432,351
Total messages received	23,796,984	25,805,430	27,264,322	30,405,937	31,829,507
of which:					
category I <sup>2</sup>		5,364,953	5,526,472	5,931,601	6,251,734
category II <sup>3</sup>	•	4,655,906	4,665,332	4,830,139	4,848,735
Domestic traffic <sup>4</sup>	4,258,900	4,977,941	5,435,479	6,520,135	5,676,737
Memorandum item:					
Global S.W.I.F.T. traffic	365,159,291	405,540,962	457,218,200	518,097,873	603,575,374

<sup>&</sup>lt;sup>1</sup> Data for Switzerland and Liechtenstein. <sup>2</sup> Category I: customer (funds) transfers. <sup>3</sup> Category II: bank (funds) transfers. <sup>4</sup> Messages sent to/received from domestic users.

Source: S.W.I.F.T.

Table 1 **Basic statistical data** 

	1991	1992	1993	1994	1995
Population (millions):					
mid-year	57.6	<i>57.8</i> <sup>1</sup>	58.2 <sup>1</sup>	58.4 <sup>1</sup>	58.4 <sup>1</sup>
GDP (GBP billions) <sup>2</sup>	573.4	594.9	630.0	668.9	700.9
GDP per capita	9,955	10,292	10,825	11,453	12,002
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	0.5354 0.5655	0.6601 0.5661	0.6766 0.6660	0.6392 0.6524	0.6450 0.6336

<sup>&</sup>lt;sup>1</sup> Estimated. <sup>2</sup> Nominal at market prices.

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of pounds sterling)

	1991	1992	<b>1993</b> <sup>2</sup>	1994	1995
Notes and coin	15.7	17.0	17.9	18.8	19.9
Narrow money deposits <sup>1</sup>	262.6	357.0 <sup>1</sup>	377.6	391.7	417.1
Narrow money supply <sup>1</sup>	278.3	$374.0^{1}$	395.5	410.5	437.0
Memorandum items:					
Broad money supply $(M_4)$ .	502.1	519.4	546.8	568.3	622.6
Broad money deposits	486.4	502.4	528.9	549.5	602.7
of which held by:					
persons	340.1	354.2	366.7	375.4	402.8
corporate sector	69.8	69.3	75.6	79.6	85.0
other	76.5	78.9	86.6	94.5	115.0

 $<sup>^1</sup>$  Break in series means that this figure is not comparable with previous figures in the series. The definition of deposits in  $M_2$  is altered with effect from December 1992. Previously, bank deposits in  $M_2$  comprised all non-interest-bearing deposits plus "chequable" sight or time deposits regardless of maturity plus other deposits (excluding certificates of deposit) of less than £100,000 and with less than one month to maturity; building society deposits included in  $M_2$  were "transactions accounts" and other deposits of less than £100,000 and up to one month's maturity. Banks now define retail deposits as deposits which arise from the customers' acceptance of an advertised rate (including nil). Building societies include all shares or sums deposited by individuals plus sums from contractual savings schemes (but exclude retail issues of subscribed capital, e.g. perpetual interest-bearing shares).  $^2$  Data for 1993 calculated on a new definition of  $M_4$ .

Table 3

Settlement media used by banks, building societies and discount houses
(at year-end, not seasonally adjusted, in billions of pounds sterling)

1991	1992	1993 <sup>2</sup>	1994	1995
1.6	1.4	1.4	1.5	1.8
187.0	210.3	204.5	223.6	224.1
26.8 140.2 20.0	31.6 157.2 21.5	30.6 154.9 19.0	36.5 168.2 18.9	32.9 173.3 17.9
0	0	0		0
		Ç		0
	1.6 187.0 26.8 140.2	1.6 1.4  187.0 210.3  26.8 31.6 140.2 157.2 20.0 21.5	1.6 1.4 1.4  187.0 210.3 204.5  26.8 31.6 30.6 140.2 157.2 154.9 20.0 21.5 19.0  0 0 0	1.6     1.4     1.4     1.5       187.0     210.3     204.5     223.6       26.8     31.6     30.6     36.5       140.2     157.2     154.9     168.2       20.0     21.5     19.0     18.9       0     0     0     0

 $<sup>^1</sup>$  In respect of deposits which cannot be split between sight and time (e.g. building society deposits with each other).  $^2$  Data for 1993 calculated on a new definition of  $M_4$ .

Table 4 **Banknotes and coin**(in millions of pounds sterling)

	1991	1992	1993	1994	1995
Total banknotes and coin outstanding <sup>1,2</sup>	19,880	20,445	21,559	23,080	24,299
Denomination of banknotes in circulation: <sup>3</sup>					
50 pounds	2,640	2,801	2,996	2,989	3,205
20 pounds	5,797	6,498	7,337	8,362	9,098
10 pounds	6,323	5,856	5,714	5,945	6,111
5 pounds	1,276	1,232	1,211	1,160	1,135
1 pound	60	58	57	57	56
Total	16,096	16,445	17,315	18,513	19,605
Banknotes held by credit institutions <sup>1,2,4</sup>	4,165	3,613	3,662	4,328	4,403
Total banknotes outside credit institutions <sup>1,2,4</sup>	15,715	16,832	17,897	18,752	19,896

 $<sup>^1</sup>$  Not seasonally adjusted.  $^2$  Average for the month of December.  $^3$  Bank of England notes only.  $^4$  Figures include coin.

Table 5

Institutional framework

(at end-1995)

Categories	Number of institutions	Number of branches	Number of accounts (millions)	Value of accounts (GBP billions) <sup>1</sup>
Central bank	1	5	} 71.4 <sup>2</sup>	} 210.1 <sup>3</sup>
Commercial banks	483	12,328		
Building societies	80	5,141	45.3	206.9 <sup>4</sup>
Post Office	1	19,490	16.0	1.45
Total	565	36,964	132.7	418.4
Memorandum item: Branches of foreign banks	262		•	

 $<sup>^1</sup>$  Figures for value of accounts with banks and building societies are compatible with the retail element of  $M_4$ . National Savings Bank (NSB) accounts are not included in  $M_4$ .  $^2$  Includes estimates.  $^3$  All private sector sterling accounts with UK banks (including the central bank and Girobank).  $^4$  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

	1991	1992	1993	1994	1995
Cash dispensers and ATMs:					
Number of networks Number of machines	3	3	3	3	3
(thousands)	18.1	18.7	19.1	20.0	20.9
(millions)	1,085	1,169	1,242	1,335	1,471
(GBP billions) <sup>1</sup>	48	56	60	65	72
EFTPOS:					
Number of networks <sup>2</sup> Number of terminals	3	3	3	3	3
(thousands) <sup>3</sup> Volume of transactions	190	220	270	350	505
(millions)Value of transactions					
(GBP billions)	•	•	•	•	•

<sup>&</sup>lt;sup>1</sup> Includes estimated values of building society transactions. <sup>2</sup> VISA, SWITCH and MasterCard only. <sup>3</sup> Estimated.

 $\label{eq:Table 7} \textbf{Number of payment cards in circulation}^1$ 

(at year-end, in millions)

	1991	1992	1993	1994	1995
Cards with a cash function	73.4	74.0	75.0	77.3	83.7
Cards with a debit/credit function:					
of which:					
cards with a debit function <sup>3</sup> cards with a credit	20.1	22.6	24.1	26.0	28.4
function <sup>2</sup>	29.0	28.6	27.6	28.5	30.8
Cards with a cheque guarantee function <sup>3</sup>	43.0	44.4	44.0	45.5	48.0
Retailer cards <sup>4</sup>	•	8.9	8.5	10.3	13.0

<sup>&</sup>lt;sup>1</sup> A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures. <sup>2</sup> Bank VISA and MasterCard and travel and entertainment cards (charge cards) only. <sup>3</sup> Includes eurocheque cards. <sup>4</sup> This figure does not include the number of accounts issued by smaller retailers.

Table 8

Payment instructions handled by selected payment systems: volume of transactions

(in millions)

	1991	1992	1993	1994	1995
Large-value systems:					
<i>Town</i> ( <i>paper</i> ) <sup>1,3</sup>	0.3	0.1	0.1	< 0.1	0.0
CHAPS (automated)	8	9	11	12	13
Cheque and credit clearings:					
cheques <sup>1,2</sup> paper-based credit	2,472	2,395	2,323	2,278	2,206
transfers <sup>1,2</sup>	183	182	173	173	171
BACS:					
credit transfers <sup>1</sup>	786	819	858	910	969
direct debits	916	1,001	1,045	1,148	1,299
Total	4,365.3	4,406.1	4,410.1	4,521.0	4,658.0

 $<sup>^{1}</sup>$  Inter-branch items are excluded.  $^{2}$  Includes Northern Ireland and Scotland.  $^{3}$  Town Clearing ceased operation on 24th February 1995.

Table 9 **Payment instructions handled by selected payment systems: value of transactions** 

(in billions of pounds sterling)

	1991	1992	1993	1994	1995
Large-value systems:					
Town (paper) <sup>1,3</sup>	2,228	1,387	1,069	681	59
CHAPS (automated)	19,050	20,928	23,545	25,053	26,719
Cheque and Credit Clearings:					
cheques <sup>1,2</sup> paper-based credit	1,207	1,175	1,194	1,210	1,234
transfers <sup>1,2</sup>	113	110	106	101	99
BACS:					
credit transfers <sup>1</sup>	484	519	574	657	742
direct debits	288	284	262	284	312
Total	23,370	24,403	26,750	27,986	29,165

 $<sup>^{1}</sup>$  Inter-branch items are excluded.  $^{2}$  Includes Northern Ireland and Scotland. (Includes estimates.)  $^{3}$  Town Clearing ceased operation on 24th February 1995.

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in thousands)

	1991	1992	1993	1994	1995
CGO <sup>1</sup>	584.0	678.2	736.8	768.4	747.5
CMO <sup>2</sup>	219.1	247.6	267.6	285.3	269.0

<sup>&</sup>lt;sup>1</sup> Central Gilts Office. <sup>2</sup> Central Moneymarkets Office.

Table 11

Transfer instructions handled by securities settlement systems:
value of transactions

(in billions of pounds sterling)

	1991	1992	1993	1994	1995
CGO <sup>1</sup>	4,355	6,862	11,725	15,266	16,001
CMO <sup>2</sup>	1,651	2,054	2,344	2,547	3,305

<sup>&</sup>lt;sup>1</sup> Central Gilts Office. <sup>2</sup> Central Moneymarkets Office.

Table 12

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

(in millions)

Instruments	1991	1992	1993	1994	1995
Cheques issued: <sup>1,4</sup>					
large-value (Town) <sup>6</sup>	0.4	< 0.1	< 0.1	< 0.1	0.0
others	3,126.0	3,005.0	2,886.1	2,802.3	2,698.7
Payments by card:					
debit	359.0	522.0	659.0	808.0	1,004.0
credit <sup>3</sup>	699.0	724.0	748.0	815.0	903.0
Paper-based credit transfers <sup>2,4</sup>	477.0	462.0	432.2	414.5	404.8
Paperless credit transfers:					
large-value (CHAPS)	8.0	9.0	11.0	11.6	12.6
others <sup>4</sup>	861.0	892.0	924.7	975.2	1,031.5
Direct debits	916.0	1,001.0	1,046.0	1,148.1	1,299.0
<b>Total</b> <sup>5</sup>	6,446.4	6,615.0	6,707.1	6,974.7	7,353.6

<sup>&</sup>lt;sup>1</sup> Excludes cheques processed at branch level. Includes cheques used to obtain cash. <sup>2</sup> Excludes items processed at branch level. <sup>3</sup> These figures have been amended to include charge cards. <sup>4</sup> Includes inter-branch items (values are estimated). <sup>5</sup> Excludes postal orders and government payments in cash from post offices against state benefit vouchers. <sup>6</sup> Town Clearing ceased operation on 24th February 1995.

Table 13

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

(in billions of pounds sterling)

Instruments	1991	1992	1993	1994	1995
Cheques issued: <sup>1,4</sup>					
large-value (Town) <sup>6</sup>	2,420.0	1,451.0	1,094.6	681.1	59.3
	1,533.0	1,483.0	1,492.0	1,496.1	1,517.9
Payments by card:					
debit	9.5	13.8	17.9	22.4	28.5
credit <sup>3</sup>	28.6	30.7	33.3	37.5	42.3
Paper-based credit transfers <sup>2,4</sup>	645.9	489.5	457.2	397.2	371.2
Paperless credit transfers:					
large-value (CHAPS)	19,050.0	20,928.0	23,545.0	25,052.0	26,719.0
others <sup>4</sup>	512.0	542.0	598.0	681.4	766.9
Direct debits	288.0	284.0	262.0	283.6	312.3
Total <sup>5</sup>	24,487.0	25,222.0	27,500.0	28,651.3	29,817.4

<sup>&</sup>lt;sup>1</sup> Excludes cheques processed at branch level. Includes cheques used to obtain cash. <sup>2</sup> Excludes items processed at branch level. <sup>3</sup> These figures have been amended to include charge cards. <sup>4</sup> Includes inter-branch items (values are estimated). <sup>5</sup> Excludes postal orders and government payments in cash from post offices against state benefit vouchers. <sup>6</sup> Town Clearing ceased operation on 24th February 1995.

Table 14

Participation in S.W.I.F.T. by domestic institutions<sup>1</sup>

	1991	1992	1993	1994	1995
Members	54	57	59	60	65
of which: live	53	56	57	59	62
Sub-members <sup>2</sup>	204	210	219	231	236
of which: live	197	197	214	228	235
Participants <sup>3</sup>	28	28	46	65	77
of which: live	18	23	38	57	69
Total users	286	295	324	356	378
of which: live	268	276	309	344	366
Memorandum items:					
Total S.W.I.F.T.:					
members	1,963	2,074	2,244	2,551	2,693
sub-members	1,607	1,738	1,887	2,097	2,259
participants	78	91	125	218	277
users	3,648	3,903	4,256	4,866	5,229

 $<sup>^1</sup>$  Data for the United Kingdom and the Isle of Man.  $^2$  Domestic users sponsored by members abroad.  $^3$  Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15
S.W.I.F.T. message flows to/from domestic users<sup>1</sup>

	1991	1992	1993	1994	1995
Total messages sent	43,171,404	48,167,743	54,796,966	60,967,184	71,035,477
of which:					
category I <sup>2</sup>	8,106,518	8,851,050	9,537,290	10,352,681	11,181,501
category II <sup>3</sup>	14,799,002	16,109,002	18,110,333	19,379,515	21,654,710
Total messages received	37,850,280	42,182,121	48,734,436	55,179,903	66,015,464
of which:					
category I <sup>2</sup>	•	10,212,447	11,316,746	12,540,347	13,978,532
category II <sup>3</sup>	•	7,863,519	8,284,102	8,350,297	8,906,827
Domestic traffic <sup>4</sup>	10,058,121	11,538,743	12,838,570	14,154,000	16,386,855
Memorandum item:					
Global S.W.I.F.T. traffic	365,159,291	405,540,962	457,218,200	518,097,873	603,575,374

 $<sup>^1</sup>$  Data for the United Kingdom and the Isle of Man.  $^2$  Category I: customer (funds) transfers.  $^3$  Category II: bank (funds) transfers.  $^4$  Messages sent to/received from domestic users.

Source: S.W.I.F.T.

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Table 1 **Basic statistical data** 

	1991	1992	1993	1994	1995
Population (millions) <sup>1</sup>	252.6	255.4	258.1	260.7	263.0
GDP (USD billions) <sup>2</sup>	5,916.7	6,244.4	6,553.0	6,935.7	7,253.8
GDP per capita (in USD)	23,423.2	24,449.5	25,389.4	26,604.1	27,581.0

<sup>&</sup>lt;sup>1</sup> Data estimated as of 1st July each year. Includes Armed Forces overseas. <sup>2</sup> Annual data. Data reflect National Income and Product Account revisions as of November 1996.

Sources: US Department of Commerce, Bureau of the Census and Bureau of Economic Analysis.

Table 2 **Settlement media used by non-banks**<sup>1</sup>

(in billions of US dollars)

	1991	1992	1993	1994	1995
Notes and coin held by public <sup>2</sup>	270.3	298.1	328.3	361.0	379.6
Transferable deposits <sup>3</sup>	638.7	743.3	821.2	808.5	766.0
Narrow money supply $(M_1)^4$	916.0	1,046.0	1,153.7	1,174.2	1,150.7
Memorandum item:  Broad money supply: <sup>4</sup>					
M <sub>2</sub>	3,472.7	3,455.1	3,514.1	3,529.8	3,680.0
М <sub>3</sub>	4,189.4	4,205.3	4,271.3	4,341.5	4,594.6

<sup>&</sup>lt;sup>1</sup> Averages of daily figures for the month of December. <sup>2</sup> Currency in circulation plus amounts of coin outstanding less amounts held by the Treasury, Federal Reserve banks and depository institutions; weekly average for the last week of each year. <sup>3</sup> Transferable deposits consist of demand deposits and other chequable deposits. <sup>4</sup> Composition of money stock measures is as follows:  $M_1$ : currency and coin + travellers' cheques + demand deposits + other chequable deposits.  $M_2$ :  $M_1$  + overnight Euro-dollars and RPs + money market mutual funds (general purpose and broker dealer only) + money market deposit accounts + savings time accounts.  $M_3$ :  $M_2$  + large time deposits (over US\$ 100,000) + term RPs and Euro-dollars + money market funds (institutions only). Data not seasonally adjusted.

Source: Federal Reserve.

- 102 - United States

Table 3

Settlement media used by banks
(in billions of US dollars, except as noted)

	1991	1992	1993	1994	1995
Balances held at central bank <sup>1</sup>	29.4	32.1	35.0	30.8	29.6
Balances due from commercial banks <sup>2</sup>	31.1	33.1	29.0	29.1	32.7
Memorandum items:					
Banks' borrowing from central bank					
(USD millions) <sup>3</sup>	218.0	675.0	94.0	223.0	136.0
Required reserves <sup>4</sup>	54.5	55.4	61.9	60.3	56.5

<sup>&</sup>lt;sup>1</sup> Year-end balances of depository institutions held at Federal Reserve banks including reserve balances and required clearing balances. Data not seasonally adjusted. <sup>2</sup> Consists of year-end non-interest-bearing balances due from commercial banks in the United States. These transferable balances do not include immediately available funds, such as federal funds sold and securities purchased under agreements to resell (RPs), which together amounted to US\$ 151.5, 162.8, 154.7, 151.7 and 180.9 billion at year-end 1991, 1992, 1993, 1994 and 1995 respectively. Data not seasonally adjusted. <sup>3</sup> Monthly average figures may be significantly different from year-end figures. Data not seasonally adjusted. <sup>4</sup> Required reserves are biweekly averages of daily figures for weeks ending 25th December 1991, 23rd December 1992, 22nd December 1993, 21st December 1994 and 20th December 1995. Vault cash used to satisfy required reserves in December (average of daily figures, not seasonally adjusted) amounted to US\$ 29.6, 31.4, 33.8, 37.1 and 38.1 billion for 1991, 1992, 1993, 1994 and 1995 respectively.

Source: Federal Reserve.

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Table 4

Value of banknotes in circulation
(at year-end, in billions of US dollars)

	1991	1992	1993	1994	1995
Total banknotes and coin outstanding <sup>1</sup>	387.5	384.9	431.4	477.6	505.0
Banknotes and coin held by depository institutions <sup>2</sup>	37.4	36.6	37.0	42.8	44.6
Banknotes and coin held by Treasury and Federal Reserve banks	79.8 <sup>2</sup>	50.2	66.1	73.8	80.8
Banknotes and coin outside Treasury and Federal Reserve banks	307.7	334.7	365.3	403.8	424.2
100 dollars	157.2	177.1	201.5	229.1	241.5
50 dollars	35.6	38.0	41.0	43.9	46.4
20 dollars	70.0	73.3	74.9	80.5	84.2
10 dollars	12.6	13.0	13.2	13.8	14.1
5 dollars	6.4	6.7	6.9	7.3	7.5
1 dollar	5.3	5.5	5.7	6.1	6.3
other <sup>3</sup>	1.2	1.2	1.3	1.3	1.4
coin	19.3	19.9	20.8	21.8	22.8
Total banknotes and coin held by public	270.3	298.1	328.3	361.0	379.6

<sup>&</sup>lt;sup>1</sup> Total currency and coin outstanding. <sup>2</sup> Partly estimated. <sup>3</sup> Miscellaneous banknotes outstanding.

Sources: US Treasury and Federal Reserve.

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Table 5
Institutional framework
(at end-1995)

Categories	Number of institutions	Number of branches <sup>1</sup>	Number of accounts (thousands, sight)	Value of accounts (billions, sight)
Central bank <sup>2</sup>	1(12)	25	$10.0^3$	25.7 <sup>4</sup>
Commercial banks	9,944	58,871	•	826.5 <sup>5</sup>
Thrift institutions <sup>6</sup>	2,094	13,253 <sup>7</sup>	•	42.7 <sup>5</sup>
Credit unions	11,920	•	•	31.0 <sup>5</sup>

<sup>&</sup>lt;sup>1</sup> Number of branches does not include head offices. <sup>2</sup> The Federal Reserve is the central bank. The Board of Governors is located in Washington, D.C. and there are twelve District banks located in Atlanta, Boston, Chicago, Cleveland, Dallas, Kansas City, Minneapolis, New York, Philadelphia, Richmond, St. Louis and San Francisco. Ten regional cheque processing centres are not included in the number of branches. <sup>3</sup> Number of depository institution accounts at the central bank. <sup>4</sup> Consists of deposits by depository institutions at the central bank. <sup>5</sup> Total transactions accounts. Data not seasonally adjusted. <sup>6</sup> Includes savings banks, savings and loan associations, cooperative and industrial banks at year-end 1995. <sup>7</sup> Includes number of savings and loan branches in June 1995 and branches of savings, cooperative and industrial banks at year-end 1995.

Source: Federal Reserve.

- 105 - United States

Table 6
Cash dispensers, ATMs and EFTPOS terminals<sup>1</sup>

	1991	1992	1993	1994	1995
Cash dispensers and ATMs:					
Number of networks Number of machines <sup>2</sup> Volume of transactions	75.0 83,545.0	73.0 87,330.0	65.0 94,822.0	60.0 109,080.0	50.0 122,706.0
(billions)Value of transactions (USD	6.4	7.2	7.7	8.3	9.7
billions)	429.0	482.0	525.0	558.0	656.6
EFTPOS: <sup>3</sup>					
Number of networks <sup>4</sup> Number of terminals Volume of transactions	23.0 88,000.0	26.0 115,042.0	26.0 196,000.0	25.0 375,500.0	27.0 554,266.0
(millions)Value of transactions (USD	223.2	289.0	429.6	624.0	775.2
billions)	6.4	8.0	10.3	15.6	18.6

<sup>&</sup>lt;sup>1</sup> Estimates provided by Bank Network News and Debit Card News (Faulkner & Gray). <sup>2</sup> Does not include card-activated terminals which do not dispense cash. <sup>3</sup> Personal Identification Number (PIN)-based debit EFTPOS. <sup>4</sup> Both shared and proprietary networks are included.

Sources: H. Spencer Nilson (Oxnard, CA) and Faulkner & Gray (NY).

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Table 7

Number of payment cards in circulation<sup>1</sup>

(in millions)

	1991	1992	1993	1994	1995
Cards with a cash function <sup>2</sup>	427.6	449.1	483.3	540.1	592.4
Cards with a cheque guarantee function <sup>3</sup>		•			•
Cards with a debit/credit function <sup>3</sup> of which:	499.5	517.2	531.1	590.5	650.8
cards with a debit function	200.3	204.7	206.1	207.5	211.0
cards with a credit function <sup>4</sup>	299.2	312.5	325.0	383.0	439.8
Retailer cards	464.4	470.0	505.0	542.6	587.2
Oil company cards	123.4	119.7	117.7	114.2	115.3
Travel and entertainment cards	25.8	24.1	23.4	23.8	24.9

<sup>&</sup>lt;sup>1</sup> Cards that provide multiple functions (i.e., cash and debit) are in widespread use. These cards are reported in more than one category. <sup>2</sup> ATM/Cash Dispenser Personal Identification Number (PIN) type debit cards. Prepaid cards which can also be used as a cash substitute are not included. <sup>3</sup> Reliable data on cheque guarantee "cards" are not available. <sup>4</sup> Includes VISA, MasterCard, Discover and American Express cards as well as travel and entertainment cards listed below. *Source:* Bank Network News (Faulkner & Gray). Data for number of cards with a debit function and number of cards with a credit function were also available from the Nilson Report. Number of telephone cards in circulation amounted to 145.0, 149.9, 155.1, 160.5 and 166.3 million for 1991, 1992, 1993, 1994 and 1995 respectively.

Sources: The Nilson Report (Oxnard, CA) and Faulkner & Gray (NY).

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Table 8 **Payment instructions handled by selected payment systems: volume of transactions** 

(in millions)

	1991	1992	1993	1994	1995
Large-value systems: 1					
CHIPS <sup>2</sup> Fedwire <sup>3</sup>	37.6 64.7	39.1 67.6	42.2 69.7	45.5 72.0	51.0 75.9
Cheque clearings:					
private clearing houses and direct exchanges <sup>4</sup> Federal Reserve <sup>5</sup>	20,689.0 19,412.0	21,024.0 19,727.0	22,527.0 19,681.0	26,221.0 17,149.0	28,145.0 16,128.0
Automated clearing houses:					
private <sup>6</sup> Federal Reserve <sup>7</sup>	74.0 1,631.0	97.0 1,843.3	117.0 2,085.1	142.6 2,379.2	160.7 2,724.3
Memorandum item:					
"On-us" cheques <sup>8</sup>	17,364.0	17,648.0	18,089.0	18,300.0	18,690.0

<sup>&</sup>lt;sup>1</sup> Number of originations. Data do not include non-value messages. <sup>2</sup> CHIPS, the Clearing House Interbank Payments System, is operated by the New York Clearing House Association. <sup>3</sup> Fedwire is operated by the Federal Reserve. <sup>4</sup> Cheques are processed either "on-us" (about 30% in 1995), or by regional private cheque clearing houses (about 45%, which includes direct exchanges), or by the Federal Reserve. Estimate. *Source:* Federal Reserve. <sup>5</sup> Includes personal, commercial, government and travellers' cheques and commercial and postal money orders. <sup>6</sup> *Source:* National Automated Clearing House Association. Does not include "on-us" items. <sup>7</sup> Includes all government and commercial debits and credits. Excludes debit items with no value such as notifications of changes in customer information. <sup>8</sup> Estimated.

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Table 9 **Payment instructions handled by selected payment systems: value of transactions** 

(in billions of US dollars)

	1991	1992	1993	1994	1995
Large-value systems:  CHIPS <sup>1</sup> Fedwire <sup>2</sup>	217,312.3	238,255.5	262,256.4	295,443.8	310,021.2
	192,254.9	199,175.0	207,629.8	211,201.5	222,954.1
Cheque clearings:  private clearing houses and direct exchanges  Federal Reserve <sup>3</sup> Automated clearing houses:					
	12,792.0	13,850.3	14,623.0	12,607.4	12,083.0
private					
Federal Reserve <sup>4</sup>	6,272.6	7,390.5	7,595.1	8,369.5	9,194.1

<sup>&</sup>lt;sup>1</sup> CHIPS, the Clearing House Interbank Payments System, is operated by the New York Clearing House Association. <sup>2</sup> Fedwire is operated by the Federal Reserve. <sup>3</sup> Includes personal, commercial, government and travellers' cheques and commercial and postal money orders. *Source:* Federal Reserve. <sup>4</sup> Includes all government and commercial debits and credits.

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in millions)

	1991	1992	1993	1994	1995
Federal Reserve:  Government securities 1	11.1	11.8	12.0	12.6	12.8
Depository Trust Company:  Corporate and municipal securities <sup>2</sup>	73.2	83.3	98.3	106.0	119.0

 $<sup>^1</sup>$  US Treasury and agency securities transfers processed through the Federal Reserve's Fedwire transfer book-entry securities settlement system. Data exclude reversals (i.e. securities sent in error and returned to sender).  $^2$  Book-entry securities deliveries processed by the Depository Trust Company's next-day and same-day funds settlement systems.

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Table 11

Transfer instructions handled by securities settlement systems: value of transactions

(in trillions of US dollars)

	1991	1992	1993	1994	1995
Federal Reserve:  Government securities 1	116.3	139.7	146.2	144.7	149.8
Depository Trust Company:					
Corporate and municipal securities <sup>2</sup>	13.9	19.4	27.8	34.0	41.0

<sup>&</sup>lt;sup>1</sup> US Treasury and agency securities transfers processed through the Federal Reserve's book-entry securities settlement system. Data exclude reversals (i.e. securities sent in error and returned to sender). <sup>2</sup> Book-entry securities deliveries processed by the Depository Trust Company's next-day and same-day funds settlement systems.

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Table 12

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

(in millions)

Instruments	1991	1992	1993	1994	1995
Cheques issued <sup>1</sup>	57,465.0	58,399.0	60,297.0	61,670.0	62,963.0
Payments by card:					
debit <sup>2</sup>	•		223.1	368.1	662.2
credit <sup>3</sup>	11,241.0	11,700.0	12,516.0	13,681.0	14,913.7
Paperless credit transfers:					
CHIPS	37.6	39.1	42.2	45.5	51.0
Fedwire <sup>4</sup>		67.6	69.7	72.0	75.9
Federal Reserve ACH <sup>5</sup>	1,058.6	1,189.5	1,345.8	1,525.7	1,738.9
Direct debits:					
Federal Reserve ACH <sup>6</sup>	572.6	653.8	739.3	847.0	978.3
Total	70,439.5	72,049.0	75,233.1	78,209.3	81,383.0

<sup>&</sup>lt;sup>1</sup> Includes personal, commercial, government and travellers' cheques and commercial and postal money orders. Data for cheques not processed by the Federal Reserve are estimated. <sup>2</sup> Data are for VISA and MasterCard only. *Source:* The Nilson Report; April 1996. <sup>3</sup> Includes all types of credit card transactions (i.e. bank, oil company, telephone, retail store, travel and entertainment, etc.). Bank cards include VISA and MasterCard credit cards only (excluding debit cards). *Source:* The Nilson Report (Oxnard, CA). <sup>4</sup> Does not include securities transfers over Fedwire. Does not include 12.8 million government securities transfers on Fedwire in 1995 valued at USD 149.8 trillion. <sup>5</sup> Does not include commercial "on-us" ACH credit transactions originated and received by the same bank. Includes 598.9 million government ACH credits. <sup>6</sup> Does not include commercial "on-us" items or debit items with no value.

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Table 13

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

(in billions of US dollars)

Instruments	1991	1992	1993	1994	1995
Cheques issued <sup>1</sup>	66,000.0	67,000.0	69,160.7	71,500.0	73,515.0
Payments by card:					
debit <sup>2</sup> credit <sup>3</sup>	485.0	529.1	10.0 620.6	15.3 730.8	25.9 879.0
Paperless credit transfers:					
CHIPS	217,312.3	238,255.5	262,256.4	295,443.8	310,021.2
Fedwire <sup>4</sup>	192,254.9	199,175.0	207,629.8	211,201.5	222,954.1
Federal Reserve ACH <sup>5</sup>	2,462.7	2,411.7	2,698.9	3,284.8	3,756.5
Direct debits:					
Federal Reserve ACH <sup>6</sup>	3,809.9	4,978.8	4,896.3	5,084.7	5,437.6
Total	482,324.8	512,350.1	547,272.7	587,260.9	616,589.3

<sup>&</sup>lt;sup>1</sup> Includes personal, commercial, government and travellers' cheques and commercial and postal money orders. Data for cheques not processed by the Federal Reserve are estimated. <sup>2</sup> Data are for VISA and MasterCard only. *Source:* The Nilson Report, April 1996. <sup>3</sup> Includes all types of credit card transactions (i.e. bank, oil company, telephone, retail store, travel and entertainment, etc.). Bank cards include VISA and MasterCard credit cards only (excluding debit cards). *Source:* The Nilson Report (Oxnard, CA). <sup>4</sup> Value of funds transfers only. Does not include securities transfers over Fedwire. Does not include 12.8 million government securities transfers on Fedwire in 1995 valued at USD 149.8 trillion <sup>5</sup> Does not include commercial "on-us" ACH credit transactions originated and received by the same bank. <sup>6</sup> Does not include commercial "on-us" items.

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Table 14

Participation in S.W.I.F.T. by domestic institutions<sup>1</sup>

	1991	1992	1993	1994	1995
Members	158	154	147	147	156
of which: live	152	151	146	143	154
Sub-members <sup>2</sup>	222	242	267	293	313
of which: live	212	230	257	286	309
Participants <sup>3</sup>	21	23	26	47	73
of which: live	14	17	23	38	62
Total users	401	419	440	487	542
of which: live	<i>37</i> 8	398	426	467	525
Memorandum items:					
Total S.W.I.F.T.:					
members	1,963	2,074	2,244	2,551	2,693
sub-members	1,607	1,738	1,887	2,097	2,259
participants	<i>78</i>	91	125	218	277
users	3,648	3,903	4,256	4,866	5,229

<sup>&</sup>lt;sup>1</sup> Data for the United States and Puerto Rico. <sup>2</sup> Domestic users sponsored by members abroad. <sup>3</sup> Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15 S.W.I.F.T. message flows to/from domestic users<sup>1</sup>

	1991	1992	1993	1994	1995
Total messages sent	59,992,143	64,993,013	72,629,616	83,173,828	99,258,753
of which:					
category I <sup>2</sup>	7,873,755	9,466,437	11,230,055	13,810,761	17,316,090
category II <sup>3</sup>	11,499,568	12,243,759	13,760,056	15,257,951	17,017,438
Total messages received	64,593,442	70,982,141	80,281,134	93,700,305	111,638,649
of which:					
category I <sup>2</sup>		15,225,444	17,043,643	20,207,556	24,217,175
category II <sup>3</sup>	•	35,433,454	37,604,439	41,497,646	46,829,754
Domestic traffic <sup>4</sup>	10,211,287	10,948,963	11,782,604	13,454,096	17,269,612
Memorandum item:					
Global S.W.I.F.T.					
traffic	365,159,291	405,540,962	457,218,200	518,097,873	603,575,374

 $<sup>^1</sup>$  Data for the United States and Puerto Rico.  $^2$  Category I: customer (funds) transfers.  $^3$  Category II: bank (funds) transfers.  $^4$  Messages sent to/received from domestic users.

Source: S.W.I.F.T.

## **COMPARATIVE TABLES**

 $\label{eq:Table 1} \textbf{Notes and coin in circulation}^{\scriptscriptstyle 1}$ 

	1991	1992	1993	1994	1995	
	${f USD}$ per inhabitant $^2$					
Belgium	1,331	1,239	1,164	1,229	1,391	
Canada	646	627	636	637	662	
France	863	828	739	807	891	
Germany	1,411	1,534	1,511	1,790	2,025	
Italy	1,168	1,023	921	1,032	1,082	
Japan	2,789	2,739	3,243	3,736	3,873	
Netherlands	1,438	1,344	1,267	1,428	1,541	
Sweden	1,587	1,207	1,042	1,120	1,312	
Switzerland	2,802	2,748	2,638	2,985	3,394	
United Kingdom	509	446	455	504	528	
United States	1,070	1,167	1,272	1,385	1,443	
		As	percentage of G	DP		
Belgium	6.2	5.9	6.0	5.2	5.3	
Canada	3.1	3.3	3.4	3.4	3.4	
France	3.7	3.6	3.5	3.4	3.7	
Germany	6.0	6.5	6.7	6.8	6.9	
Italy	5.4	5.7	5.8	5.9	5.5	
Japan	9.4	9.0	9.5	9.7	10.4	
Netherlands	6.8	6.5	6.5	6.3	6.0	
Sweden	5.3	5.1	5.3	5.0	4.7	
Switzerland	8.0	8.0	7.9	7.9	7.7	
United Kingdom	2.7	2.9	2.8	2.8	2.8	
United States	4.6	4.8	5.0	5.2	5.2	
		As perce	entage of narrow	money <sup>3</sup>		
Belgium	31.2	31.5	29.6	27.1	27.2	
Canada	46.1	47.0	44.0	44.2	42.8	
France	15.8	15.9	15.3	15.1	14.0	
Germany	28.4	29.9	29.2	29.6	29.1	
Italy	14.2	15.7	15.5	16.0	16.3	
Japan	33.1	31.2	31.1	30.7	29.2	
Netherlands	28.6	27.4	25.1	25.0	22.1	
Sweden	11.5	10.8	10.7	10.7	10.5	
Switzerland	21.8	21.6	19.7	19.7	18.0	
United Kingdom	5.6	4.8	4.5	4.6	4.6	
United States	29.5	28.5	28.5	30.7	33.0	

 $<sup>^1</sup>$  For explanation of figures see relevant country tables.  $^2$  Year-end figures converted at end-of-year exchange rates.  $^3$  Narrow money:  $M_1$ ; except for Sweden ( $M_3$ ) and the United Kingdom ( $M_2$ ).

Table 2

Transferable deposits held by non-banks<sup>1</sup>

	1991	1992	1993	1994	1995	
	USD per inhabitant <sup>2</sup>					
Belgium	2,929	2,700	2,764	3,307	3,715	
Canada	3,728	3,505	3,614	3,511	3,693	
France	4,445	4,381	4,080	4,543	5,459	
Germany	3,655	3,591	3,761	4,287	4,953	
Italy	6,756	5,286	4,863	5,236	5,399	
Japan <sup>3</sup>	7,001	7,141	8,160	9,424	11,031	
Netherlands	3,585	3,561	3,776	4,277	5,433	
Sweden	12,450	10,119	8,850	9,811	11,351	
Switzerland	5,565	5,601	5,839	6,799	8,359	
United Kingdom	8,515	9,357	9,589	10,493	11,073	
United States	2,529	2,910	3,182	3,101	2,913	
		A	s percentage of (	GDP		
Belgium	13.6	12.8	14.0	14.0	14.0	
Canada	18.0	18.5	19.5	18.8	19.1	
France	19.9	19.3	19.4	19.2	20.4	
Germany	15.6	15.3	16.7	16.3	16.8	
Italy	31.0	29.4	30.4	29.8	27.6	
Japan <sup>3</sup>	26.3	25.0	24.6	25.3	25.1	
Netherlands	17.0	17.3	19.4	18.8	21.2	
Sweden	41.2	43.0	44.6	42.4	40.6	
Switzerland	15.9	16.3	17.4	18.0	19.0	
United Kingdom	45.8	60.0	60.0	58.6	59.5	
United States	10.8	11.9	12.5	11.7	10.6	
		As perc	entage of narrow	money <sup>4</sup>		
Belgium	68.8	68.5	70.0	72.9	72.8	
Canada	266.3	263.0	249.9	243.9	238.7	
France	84.2	84.1	84.7	84.9	86.0	
Germany	73.7	70.1	72.7	70.8	71.2	
Italy	82.2	81.3	81.9	81.4	81.1	
Japan <sup>5</sup>	97.9	91.5	86.5	85.3	82.7	
Netherlands	71.4	72.6	74.9	75.0	77.9	
Sweden	90.2	90.6	90.6	90.3	90.6	
Switzerland	43.7	43.6	43.6	44.9	44.2	
United Kingdom	94.4	95.5	95.5	95.4	95.4	
United States	69.7	71.1	71.2	68.9	66.6	

 $<sup>^1</sup>$  For explanation of figures and definition of transferable deposits, see relevant country tables.  $^2$  Year-end figures converted at end-of-year exchange rates.  $^3$  End-March figure converted at end-March exchange rate.  $^4$  Narrow money:  $\rm M_1$ ; except for Sweden (M\_3) and the United Kingdom (M\_2).  $^5$  End-March figure.

Table 3 **Settlement media used by banks**<sup>1</sup>
(1995)

	Banks' reserves at central bank (USD billion) <sup>2</sup>	Banks' reserves at central bank in percentage of narrow money <sup>3</sup>	Transferable deposits at other banks (USD billion) <sup>2</sup>	Transferable deposits at other banks in percentage of narrow money <sup>2</sup>
Belgium	0.063	0.12	4.4	8.4
Canada	0.3	0.57	•	•
France	1.4	0.39	643.0	175.2
Germany	26.0	4.6	253.9	44.6
Italy	46.6	12.2	40.5	10.6
Japan	31.5	1.9	92.9 <sup>4</sup>	5.5 <sup>5</sup>
Netherlands	6.091	5.65	1.9	1.8
Sweden	0.11	0.10	8.0	7.2
Switzerland	4.2	3.1	16.7	12.5
United Kingdom	2.8	0.4	347.4	51.3
United States	29.6	2.6	32.7	2.8

 $<sup>^1</sup>$  For explanation of figures see relevant country tables.  $^2$  Year-end figures converted at end-of-year exchange rates.  $^3$  Narrow money:  $M_1$ ; except for Sweden ( $M_3$ ) and the United Kingdom ( $M_2$ ).  $^4$  End-March figure converted at end-March exchange rate.  $^5$  End-March figure.

Table 4

Institutional framework<sup>1</sup>
(1995)

	Number of institutions	Number of inhabitants per institution Number of branches		Number of inhabitants per branch	Number of accounts per inhabitant
Belgium	146	69,562	9,456	1,074	1.2
Canada <sup>2</sup>	2,553	11,633	13,681	2,171	
France	613	94,290	46,646	1,236	1.1
Germany	3,617	22,615	67,986 <sup>3</sup>	1,203	1.0
Italy	972	58,951	38,038	1,506	0.5
Japan	4,929	25,482	72,628	1,729	
Netherlands	127	121,717	6,501	2,378	1.2
Sweden	109	81,009	3,892	2,269	3.1
Switzerland	384	18,386	7,383	956	
United Kingdom	565	103,363	36,964	1,580	2.3
United States	23,958	10,978	72,124	3,646	•

 $<sup>^1</sup>$  For explanation of figures see relevant country tables.  $^2$  Deposit-taking institutions only.  $^3$  Including post office branches which are entrusted with the execution of semi-cashless payments for Deutsche Postbank AG.

Table 5

Cash dispensers and ATMs<sup>1</sup>

	1991	1992	1993	1994	1995	
	Number of machines per 1,000,000 inhabitants					
Belgium	105	109	119	313	360	
Canada	467	510	554	578	595	
France	284	305	325	356	395	
Germany	171	235	308	361	436 <sup>5</sup>	
Italy	204	245	266	326	378	
Japan	795	870	935	978	1,013	
Netherlands	223	261	292	325	355	
Sweden	258	254	255	259	267	
Switzerland	347	387	439	481	532	
United Kingdom	314	324	328	342	358	
United States	331	342	367	418	467	
		Number of	transactions per	inhabitant		
D-1-i	8.1	0.0	0.1	11.0	14.2	
Belgium		8.8	9.1	11.9 41.0	14.2	
Canada	33.6 11.0	36.0 12.0	37.5 13.3	41.0 14.2	45.9 15.7	
	11.0	12.0	15.5	11.5	13.7 13.4 <sup>5</sup>	
Germany	· 2.9	3.6	• 4.1	4.6	5.3	
Italy <sup>2</sup>	2.9	2.9	3.3	3.6	3.8	
Japan			- 10			
Netherlands	13.7	17.3	20.5	23.9	27.5	
Sweden	24.1	25.1	28.3	30.7	31.8	
Switzerland	6.6	7.4	8.3	9.1	10.3	
United Kingdom	18.8	20.2	21.3	22.9	25.2	
United States	25.3	28.2	29.8	31.8	36.9	
		Average v	alue of transactio	ons (USD) <sup>3</sup>		
Belgium	117.4	113.2	110.3	125.2	137.5	
Canada <sup>4</sup>	56.7	56.7	53.5	51.2	51.3	
France	82.7	86.1	77.0	76.5	81.3	
Germany	•			157.6	196.6 <sup>5</sup>	
Italy	239.2	245.4	196.8	195.3	194.4	
Japan	363.0	359.3	395.4	419.8	450.6	
Netherlands	92.2	98.5	96.4	97.9	108.4	
Sweden	120.6	128.6	101.2	104.7	112.6	
Switzerland	224.6	225.1	207.8	217.8	242.1	
United Kingdom	78.2	84.6	72.5	74.6	77.3	
United States	67.0	66.9	68.2	67.2	67.7	
	07.0	55.7	00.2	J2	Ü	

<sup>&</sup>lt;sup>1</sup> For explanation of figures see relevant country tables. <sup>2</sup> Estimated figures referring to the whole system; they differ from those provided in the statistical annex of the Italian chapter. <sup>3</sup> Converted at yearly average exchange rates. <sup>4</sup> Average value of a cash withdrawal only. <sup>5</sup> Increase partly due to new data source.

Table 6 **EFTPOS terminals**<sup>1</sup>

	1991	1992	1993	1994	1995	
	Number of terminals per 1,000,000 inhabitants					
Belgium	3,213	4,034	5,246	6,294	7,174	
Canada	472	1.035	2.134	4.086	6,394	
France	3,568	5,594	7,435	7,574	9,394	
Germany	432	640	344	767	856	
Italy	805	1,094	1,350	1,819	2,683	
Japan	213	264	168	227	200	
Netherlands	268	754	1,606	3,094	4,747	
Sweden	1,034	1,647	3,054	5,514	6,160	
Switzerland	697	1,022	1,433	2,379	3,499	
United Kingdom	3,299	3,806	4,639	5,993	8,647	
United States	348	450	759	1,440	2,107	
		Number of	transactions per	· inhabitant		
Belgium	9.9	12.0	14.2	18.0	20.8	
Canada	0.4	1.1	2.6	6.3	13.3	
France	18.5	22.7	24.3	26.1	32.9	
Germany	0.25	0.35	0.85	1.28	1.83	
Italy <sup>2</sup>	0.19	0.28	0.39	0.57	0.83	
Japan	0.006	0.006	0.005	0.006	0.007	
Netherlands	2.1	3.1	4.4	8.2	16.6	
Sweden	3.5	5.3	6.5	8.8	10.4	
Switzerland	2.0	2.8	4.0	5.7	8.0	
United Kingdom	•					
United States	0.9	1.1	1.7	2.4	2.9	
		Average v	alue of transaction	ons (USD) <sup>3</sup>		
Belgium	57.9	57.7	63.2	71.2	77.6	
Canada	44.3	43.8	38.8	37.3	35.0	
France	58.5	62.5	58.0	57.6	63.3	
Germany	53.6	43.5	54.2	64.0	95.7	
Italy	163.6	161.6	121.5	117.5	116.0	
Japan	103.9	97.7	184.9	80.2		
Netherlands	30.1	46.0	58.5	62.9	59.1	
Sweden	93.5	101.0	85.5	80.8	80.7	
Switzerland	41.0	51.8	58.8	73.8	96.4	
United Kingdom	•					
United States	28.7	27.7	24.0	25.0	24.0	

 $<sup>^{1}</sup>$  For explanation of figures see relevant country tables.  $^{2}$  Estimated figures referring to the whole system; they differ from those provided in the statistical annex of the Italian chapter.  $^{3}$  Converted at yearly average exchange rates.

Table 7

Number of cards<sup>1</sup>
(1995 per 1,000 inhabitants)

	Cards with a cash function	Cards with a debit/credit function	Cards with cheque guarantee function	Retailers' cards
Belgium	931	931	457	120
Canada	1,405	533	•	4,209
France	423	409	•	
Germany		909	470	59
Italy	241	357	29	
Japan	2,077	1,891		471
Netherlands	1,062	97	47	
Sweden	699	537	•	
Switzerland	795	847	545	
United Kingdom	1,433	1,014	822	223
United States	•	2,475	•	2,233

<sup>&</sup>lt;sup>1</sup> For explanation of figures, see relevant country tables.

 $\label{eq:Table 8} \textbf{Relative importance of cashless payment instruments} \ ^{1}$ 

(percentage of total volume of cashless transactions)

	1991	1992	1993	1994	1995			
		Cheques						
Belgium	21.6	18.8	16.0	11.7	10.6			
Canada	64.8	62.4	58.7	52.8	46.9			
France	52.2	50.6	49.1	46.9	44.8			
Germany	9.6	8.8	8.1	7.9	7.0			
Italy <sup>2</sup>	41.6	40.0	37.2	34.0	32.8			
Japan	•	•	•	•	•			
Netherlands	14.3	12.3	8.1	6.0	4.0			
Sweden <sup>5</sup>	9.9	9.3		•	•			
Switzerland <sup>3</sup>	5.4	4.4	3.3	2.6	2.0			
United Kingdom <sup>4</sup>	48.5	45.4	43.0	40.2	36.7			
United States	81.6	81.1	80.1	78.9	77.4			
		1	Payment by card	s				
Belgium	13.3	15.6	16.5	18.0	19.7			
Canada	27.8	28.9	31.1	35.3	40.0			
France	14.5	15.0	15.7	16.3	17.3			
Germany	1.8	2.1	2.6	3.1	3.6			
Italy <sup>2</sup>	3.1	3.7	4.1	5.2	6.6			
Japan								
Netherlands	1.8	2.6	4.1	7.9	13.6			
Sweden <sup>5</sup>	8.8	8.2	9.8	11.6	14.2			
Switzerland	9.7	11.8	13.8	16.2	18.4			
United Kingdom	16.4	18.8	21.0	23.3	25.9			
United States	16.0	16.2	16.9	18.0	19.1			

<sup>&</sup>lt;sup>1</sup> For explanation of figures see relevant country tables. In some cases the total may not sum to 100% because of other items. <sup>2</sup> Estimated figures referring to the whole system; they differ from those provided in the statistical annex of the Italian chapter. <sup>3</sup> Postal cheques are not included because detailed figures were no longer published by the PTT after 1992. In 1991 its share was approximately 4%. <sup>4</sup> Includes Town cheques. <sup>5</sup> Statistics on the volume and value of cheque payments are not available for 1993 and 1994. The percentage figures for these years therefore do not include cheques.

Table 8 (cont.)

	1991	1992	1993	1994	1995			
		Credit transfers						
Belgium	57.0	56.9	58.5	60.9	60.2			
Canada	3.9	4.4	5.2	6.4	7.3			
France	15.2	15.4	15.4	15.7	16.0			
Germany	51.3	49.8	45.6	48.7	49.5			
Italy <sup>2</sup>	40.9	42.1	44.6	46.8	45.9			
Japan	•	•		•				
Netherlands	61.3	61.3	66.4	64.2	60.6			
Sweden	76.9	77.6	84.5	82.3	79.4			
Switzerland	82.7	81.3	80.1	78.1	76.3			
United Kingdom <sup>6</sup>	20.9	20.6	20.4	20.1	19.7			
United States	1.6	1.8	1.9	2.1	2.3			
			Direct debits					
Belgium	8.2	8.8	9.0	9.4	9.5			
Canada	3.5	4.3	5.0	5.5	5.8			
France	9.3	10.2	10.6	11.7	12.2			
Germany	37.3	39.3	43.7	40.3	39.9			
Italy <sup>2</sup>	3.8	4.1	4.4	4.7	5.4			
Japan	•			•				
Netherlands	22.6	23.9	21.5	21.9	21.8			
Sweden	4.4	4.9	5.7	6.1	6.4			
Switzerland	2.3	2.5	2.8	3.1	3.3			
United Kingdom	14.2	15.1	15.6	16.5	17.7			
United States	0.8	0.9	1.0	1.1	1.2			

<sup>&</sup>lt;sup>6</sup> Paper-based and paperless (includes large-value: CHAPS).

Table 9

Relative importance of cashless payment instruments<sup>1</sup>

(percentage of total value of cashless transactions)

	1991	1992	1993	1994	1995			
		Cheques						
Belgium Canada France Germany Italy <sup>2</sup> Japan Netherlands Sweden Switzerland <sup>3</sup>	5.4 99.0 7.3 2.8 9.1 0.2 11.4	6.2 98.8 6.4 2.4 7.1 0.2 10.6 0.1	5.4 98.8 4.6 2.3 5.4 0.1	4.6 98.7 4.4 2.3 4.5 0.1	4.3 98.1 4.7 2.1 4.5 0.1			
United Kingdom <sup>4</sup> United States	16.1 13.7	11.6 13.1	9.4 12.6 Payment by card	7.6 12.2	5.3 11.9			
Belgium Canada France Germany Italy <sup>2</sup> Japan Netherlands Sweden Switzerland <sup>5</sup> United Kingdom United States	0.1 0.3 0.2 0.02 0.04 0.0 0.7 0.2 0.1	0.2 0.3 0.2 0.02 0.04 0.0 0.7 0.2 0.1	0.1 0.3 0.2 0.02 0.03 0.0 0.9 0.2 0.1	0.1 0.3 0.2 0.02 0.04 0.1 1.0 0.2 0.1	0.2 0.5 0.2 0.03 0.05 0.2 1.4 0.2 0.1			

 $<sup>^1</sup>$  For explanation of figures see relevant country tables. In some cases the total may not sum to 100% because of other items.  $^2$  Estimated figures referring to the whole system; they differ from those provided in the statistical annex of the Italian chapter.  $^3$  Postal cheques are not included because detailed figures were no longer published by the PTT after 1992. In 1991 its share was below 0.1%.  $^4$  Includes Town cheques.  $^5$  Below 0.1%.

Table 9 (cont.)

	1991	1992	1993	1994	1995			
		Credit transfers						
Belgium	94.3	93.4	94.2	94.7	95.2			
Canada	0.6	0.7	0.7	0.7	1.1			
France	89.9	91.2	93.5	94.0	93.3			
Germany	95.4	95.5	95.7	95.7	95.8			
Italy <sup>2</sup>	88.6	91.1	93.2	94.2	94.1			
Japan								
Netherlands	98.4	98.6	98.8	98.7	98.6			
Sweden	84.9	86.3	95.8	96.2	95.7			
Switzerland	99.8	99.9	99.9	99.8	99.8			
United Kingdom <sup>6</sup>	82.5	87.1	89.5	91.2	93.4			
United States	85.4	85.8	86.4	86.8	87.0			
			Direct debits					
Belgium	0.2	0.2	0.3	0.5	0.3			
Canada	0.1	0.2	0.2	0.2	0.3			
France	0.7	0.6	0.7	0.8	0.6			
Germany	1.8	2.1	2.0	2.0	2.1			
Italy <sup>2</sup>	0.3	0.2	0.2	0.2	0.2			
Japan								
Netherlands	1.4	1.2	1.1	1.1	1.2			
Sweden	3.0	2.4	3.3	2.8	2.9			
Switzerland				0.1	0.1			
United Kingdom	1.2	1.1	1.0	1.0	1.0			
United States	0.8	1.0	0.9	0.9	0.9			

<sup>&</sup>lt;sup>6</sup> Paper-based and paperless (includes large-value: CHAPS).

Table 10a

Features of selected interbank funds transfer systems<sup>1</sup>

(figures relate to 1995)

	Type <sup>2</sup>	Owner/ Manager <sup>3</sup>		. of ipants	Processing <sup>4</sup>	Settlement <sup>5</sup>	Membership <sup>6</sup>
				of which direct			
Belgium							
CH	L + R	B + CB	142	72	M	N	О
CEC	R	B + CB	81	•	ACH	N	О
Canada							
IIPS	L	B + AS	66	20	•	.7	RM
France							
SAGITTAIRE	L	CB	60	60	RTT	N	RM
CH Paris <sup>8</sup>	L + R	В	435	38	M	N	RM
CH Provinces <sup>9</sup>	R	CB	.10	.10	M	N	О
SIT	R	В	289	23	RTT	N	RM
CREIC	R	СВ	16	16	ACH	N	О
Card payments	R	В	212	11	ACH	N	RM
TBF	L	СВ	•	•	RTT	RTGS	О
Germany							
MAOBE	R	CB	5,570	•	ACH	GS	О
DTA	R	CB	5,570	•	ACH	GS	О
EIL-ZV	L	CB	5,570	•	RTT	RTGS	О
Platz.		an-				66	
überweisungsverkehr	L + R	СВ	5,570	•	M	GS	О
Konvent. Abrechnung	L + R	СВ	625	•	M	N	О
EAF	L	СВ	68	•	RTT	N	RM
Italy					11		
Local clearing	L + R	CB	643	268	RTT <sup>11</sup>	N	0
Retail	R	$CB^{12}$	832	124	ACH	N	0
ME <sup>13</sup>	L	CB	299	299	RTT	N	О
SIPS	L	$CB^{12}$	678	178	RTT	N	0
BISS	L	СВ	426	426	RTT	RTGS	О

<sup>&</sup>lt;sup>1</sup> For additional information see relevant country chapters. <sup>2</sup> L = Large-value system, R = Retail system. <sup>3</sup> Owner/Manager: B = Banks, CB = Central Banks, AS = Payment Association. <sup>4</sup> Processing method: M = Manual, ACH = Automated Clearing House (off-line), RTT = Real-Time Transmission. <sup>5</sup> N = multilateral Netting, BN = Bilateral Netting, RTGS = Real-Time Gross Settlement, GS = other Gross Settlement. <sup>6</sup> O = Open membership (any bank can apply) or RM = Restricted Membership (subject to criteria). <sup>7</sup> Other (see Table 11, Footnote 7). <sup>8</sup> Clearing House in Paris. <sup>9</sup> Clearing Houses in the provinces. <sup>10</sup> All institutions on which cheques are drawn or at which bills of exchange are payable are bound by regulations to participate in the local clearing houses, through an agent in certain cases. <sup>11</sup> Transactions can also be submitted on floppy disk. <sup>12</sup> System managed by the Interbank Society for Automation in the name and on behalf of the Banca d'Italia. <sup>13</sup> Electronic memoranda.

Table 10a (cont.)

	Degree of centralisa- tion <sup>14</sup>	Pricing <sup>15</sup>	Closing time for same-day transactions <sup>16</sup>	Number of transactions (thousands)	Value of transactions (USD billions) <sup>17</sup>	Ratio of transactions value to GDP (at annual rate)
Belgium						
CH	D	V	16.30	14,445	11,357.1	42.2
CEC	C	F	13.45	826,221	903.1	3.4
Canada						
IIPS	D	N	16.00	2,323	11,706	20.4
France						
SAGITTAIRE	C	F	13.00	4,500	27,532	13.64
CH Paris <sup>8</sup>	C	F	15.00	699,100	26,210	17.07
CH Provinces <sup>9</sup>	C	N	11.00	2,883,000	1,322	0.86
SIT	D	F	13.30	2,588,800	1,873	1.2
CREIC	C	F	NO	281,800	23	0.02
Card payments	C	F	10.30	1,872,600	119	0.08
TBF	C	F	17.30	•	•	
Germany						
MAOBE	D	V	NO	115,300	186	0.07
DTA	D	V	NO	2,107,100	3,092	1.28
EIL-ZV	D	V	15.00	5,500	18,840	7.81
Platz.						
überweisungsverkehr <sup>18</sup>	D	N	12.00	8,100	3,620	1.50
Konvent. Abrechnung <sup>19</sup>	D	F	13.00	1,700	5,149	2.14
EAF	C	V	12.30	17,800	103,514	42.92
Italy						
Local clearing	D	V	9.30	235,665	2,194	2.0
Retail	C	F	$NO^{20}$	586,865	761	0.7
ME <sup>15</sup>	C	V	16.00	1,810	11,300	10.4
SIPS	C	F	14.00	4,462	16,807	15.4
BISS	C	V	17.00	46	85	0.1

 $<sup>^{14}</sup>$  Geographical access to the system: C = Centralised (one processing centre only) or D = Decentralised.  $^{15}$  Prices charged to participants: F = Full costs (including investments), V = Variable costs, S = Symbolic costs (below variable costs), N = No costs.  $^{16}$  Closing time for same day transactions (NO = no same-day transactions).  $^{17}$  Converted at yearly average exchange rates.  $^{18}$  Decrease due to conversion requirement, resulting in a switch of previously paper-based payments to EIL-ZV and DTA.  $^{19}$  Reporting change in 1995: number of delivery envelopes cleared instead of individual payments contained therein.  $^{20}$  Except for the credit transfers entered before 12.00 which are settled on the same day.

 $\label{thm:continuous} Table~10b$  Features of selected interbank funds transfer systems  $^1$ 

(figures relate to 1995)

	Type <sup>2</sup>	Owner/ Manager <sup>3</sup>		No. of participants		Settlement <sup>5</sup>	Membership <sup>6</sup>
				of which direct			
Japan							
FEYCS	L	В	264 <sup>7</sup>	264 <sup>7</sup>	RTT	N	RM
BOJ-NET	L	СВ	417 <sup>7</sup>	417 <sup>7</sup>	RTT	RTGS <sup>8</sup>	RM
Netherlands							
BGC-CH	R	В	66	66	ACH	N	О
8007-S.W.I.F.T	L	CB	64	64	ACH + RTT	N	О
FA	L	CB	145	145	RTT	N + RTGS	О
Sweden							
RIX	L	CB	114	23	RTT	RTGS	RM
Bank Giro System	R	В	20	20	ACH	N	О
Switzerland							
SIC	L + R	CB + B	214	214	RTT	RTGS	RM
DTA/LSV	R	В	168	168	ACH	N	RM
United Kingdom							
CHAPS	L	В	429	16	RTT	N	RM
TOWN <sup>9</sup>	•	•	•	•	•	•	•
BACS	R	В	35,000	17	ACH	N	RM
Cheque/credit	R	В	613	12	M	N	RM
United States							
Fedwire	L	CB	10,000	10,000	RTT	RTGS	О
CHIPS	L	В	105	105	RTT	N	RM

<sup>&</sup>lt;sup>1</sup> For additional information see relevant country chapters. <sup>2</sup> L = Large-value system; R = Retail system. <sup>3</sup> Owner/Manager: B = Banks, CB = Central Banks. <sup>4</sup> Processing method: M = Manual, ACH = Automated Clearing House (off-line), RTT = Real-Time Transmission. <sup>5</sup> N = multilateral Netting, BN = Bilateral Netting, RTGS = Real-Time Gross Settlement, GS = other Gross Settlement. <sup>6</sup> O = Open membership (any bank can apply) or RM = Restricted Membership (subject to criteria). <sup>7</sup> As of year-end. <sup>8</sup> The system has been designed to allow participants to enter funds transfer instructions continuously, in which case settlement takes place on the central bank's books immediately. It is, however, also used to settle on a net basis. <sup>9</sup> Town Clearing ceased operation on 24th February 1995.

Table 10b (cont.)

	Degree of centralisa- tion <sup>9</sup>	Pricing <sup>10</sup>	Closing time for same- day transactions <sup>11</sup>	Number of transactions (thousands)	Value of transactions (USD billions)	Ratio of transactions value to GDP (at annual rate)
Japan						
FEYCS	D	$V^{12}$	13.45	8,839	81,624	16.0
BOJ-NET	D	$V^{12}$	17.00	3,849	434,677	85.0
Netherlands				Ź	,	
BGC-CH	D	F	12.45	1,410,900	1,363	3.4
8007-S.W.I.F.T	С	V	12.45	2,100	6,438	16.3
FA	C	V	15.30	400	5,261	13.3
Sweden						
RIX	C	F	16.30	119	7,509	32.8
Bank Giro System	C	F	NO	249,153	318	1.4
Switzerland						
SIC	C	F	16.15	95,990	27,235	88.9
DTA/LSV	C	F	NO	80,368	238	0.8
United Kingdom <sup>13</sup>						
CHAPS	D	F	15.45	12,596	42,171	38.1
TOWN <sup>14</sup>		•			•	•
BACS	C	F	NO	2,268,000	1,664	1.5
Cheque/credit	D	F	NO	2,377,000	2,104	1.9
<b>United States</b>						
Fedwire	C	F	18.30	75,900	222,954	30.7
CHIPS	C	F	16.30	51,000	310,021	42.7

 $<sup>^9</sup>$  Geographical access to the system: C = Centralised (one processing centre only) or D = Decentralised.  $^{10}$  Prices charged to participants: F = Full costs (including investments), V = Variable costs, S = Symbolic costs (below variable costs), N = No costs.  $^{11}$  Closing time for same-day transactions (NO = no same-day transactions).  $^{12}$  Prices are set on the principle that institutions which are to benefit from on-line processing should pay the relevant charges.  $^{13}$  Interbank figures only.  $^{14}$  Town Clearing ceased operation on 24th February 1995.

Table 11
Operating hours of selected large-value interbank funds transfer systems<sup>1</sup>
(as of December 1995)

		·				
System	Gross (G) or net (N)	Opening-closing time for same- day value (local time)	Settlement finality (local time)	Cut-off for all third-party payment orders	Cut-off for international corres- pondents' payment orders	Memo item:  Standard money market hours (local time)
Belgium						
C.E.C. <sup>2</sup> Clearing House of	N	<b>13.46-13.45</b> <sup>3</sup>	16.30	13.30	<b>8.30</b> <sup>4</sup>	
Belgium	N	9.00-16.30	16.30	13.00	8.30 <sup>4</sup>	( <b>9.00-16.15</b> <sup>5</sup> )
Canada <sup>6</sup>	_					
IIPS	$N^7$	8.00-16.00	<b>12.00</b> <sup>8</sup>	<b>14.30</b> <sup>9</sup>	<b>16.00</b> <sup>9</sup>	(7.30-17.30)
France SAGITTAIRE	N	<b>8.00-13.00</b> <sup>10</sup>	18.30		<b>8.00</b> <sup>11</sup>	(9.15.17.00)
TBF (planned)	G	7.30-17.30	7.30-17.30	(12)	8.00 <sup>11</sup>	(8.15-17.00)
Germany						
Express electronic						
credit transfer system	G	8.15-15.00	8.15-15.00	(13)	<b>8.00</b> <sup>11</sup>	
Express (paper-						
based) local credit transfer system	G	8.00-12.00	8.00-12.00	(13)	<b>8.00</b> <sup>11</sup>	(9.30-13.00 <sup>14</sup> )
EAF <sup>15</sup>	N	8.00-12.30	<b>14.30</b> <sup>16</sup>	(13)	<b>8.00</b> <sup>11</sup>	, ,
Italy					.,	17
BISS SIPS	G N	8.00-17.00 8.00-14.00	8.00-17.00 16.30	17.00 14.00	9.00 <sup>11</sup> 9.00 <sup>11</sup>	(8. <b>45-16.30</b> <sup>17</sup> )
ME	N	8.00-16.00	16.30	16.00	9.00 <sup>11</sup>	
Japan						
FEYCS	N G <sup>18</sup>	9.00-13.45	15.00	10.30 <sup>11</sup>	<b>10.30</b> <sup>11</sup>	(9.00-17.00)
BOJ-NET	$G_{10}$	9.00-17.00	9.00-17.00	14.00	n.a.	
Netherlands Central Bank						
FA System	G	8.00-15.30	8.00-15.30	.19	•19	(9.00-13.00)
8007 S.W.I.F.T.	N	<b>8.00-12.00</b> <sup>20</sup>	13.00	<b>8.00</b> <sup>11</sup>	<b>8.00</b> <sup>11</sup>	
Sweden RIX	$G^{18}$	<b>8.00-16.30</b> <sup>21</sup>	<b>8.00-16.30</b> <sup>21</sup>	(22)	<b>8.00</b> <sup>11</sup>	(9.00-16.00)
Switzerland	U	0.00-10.50	0.00-10.30	, ,	0.00	(3.00-10.00)
SIC	G	<b>18.00-16.15</b> <sup>23</sup>	<b>18.00-16.15</b> <sup>23</sup>	<b>15.00</b> <sup>23</sup>	$8.00^{4}$	(9.00-16.00)
United Kingdom						
CHAPS	N	8.30-15.45	end of day	none	12.00	(7.30-15.30 <sup>24</sup> )
United States <sup>6</sup>		0.20.40.20	0.30.40.30	10.00	10.00	(0.20.30.20 <sup>25</sup> )
Fedwire CHIPS	G N	8.30-18.30 7.00-16.30	<b>8.30-18.30 18.00</b> <sup>26</sup>	18.00 16.30	18.00 16.30	(8.30-18.30 <sup>25</sup> )
ECU clearing						
system	N	<b>14.01-14.00</b> <sup>27</sup>	15.45	none	none	(TOM/NEXT <sup>28</sup> )

#### **Footnotes to Table 11**

#### (n.a.= not applicable)

- Some systems make no explicit distinction between large-value and retail transactions and may be used to settle interbank transfers relating to a variety of underlying transactions. Some systems may also accept payment orders for a number of value days. Money market hours indicated refer to the time period in which domestic interbank transactions are normally carried out. They therefore do not relate to particular interbank funds transfer systems.
- <sup>2</sup> In June 1990 a special "large-value credit transfer application" was introduced in the C.E.C. All net settlements from the C.E.C. take place at the end of the day at the (manual) Clearing House of Belgium.
- <sup>3</sup> The C.E.C. transfer system operates round-the-clock, five days a week.
- <sup>4</sup> S.W.I.F.T. guideline.
- <sup>5</sup> Luxembourg dealers, who are important operators in Belgian francs, are only active in the market before noon; the central bank conducts its daily fine-tuning operations at about 11.00.
- <sup>6</sup> Eastern time.
- Settlement typically takes place on the basis of bilateral net positions. The net receiving bank in each pair creates a paper document called an inter-member debit voucher and delivers it to the net sending bank as part of the exchanges covered by the Automated Clearing and Settlement System (ACSS) operated by the Canadian Payments Association. Settlement may also take place on a gross basis or on an item-by-item basis, in each case over the ACSS.
- <sup>8</sup> Net settlement at noon the next day (retroactively).
- <sup>9</sup> Local time at the receiving IIPS point, or the beneficiary account point, whichever is earlier.
- SAGITTAIRE'S exchange day, i.e. the period during which orders are recorded by the Bank of France, begins at 8.00 and ends at 17.30. Orders sent after 17.30 are stored by S.W.I.F.T. and processed at the start of the next exchange day. SAGITTAIRE'S accounting day starts at 13.00 on D 1 and ends at 13.00 on D (transfers sent after 13.00 on D, regardless of whether they are processed during the same exchange day or at the start of the following exchange day, are only entered in the accounts on D + 1). The net positions of members are drawn up after the close of the accounting day.
- <sup>11</sup> S.W.I.F.T. guideline; in practice it may be later.
- <sup>12</sup> A cut-off for third-party orders is being discussed for the planned TBF system.
- 13 This is subject to arrangements between the correspondent banks.
- <sup>14</sup> For settlement purposes it can be later.
- <sup>15</sup> Electronic netting system in Frankfurt for interbank transfers predominantly relating to international DM transactions.
- Planned time for communication of completion (positive message) or non-completion (negative message) of settlement.
- The money market may continue to operate beyond the standard hours according to the closing times of the clearing and settlement systems.
- The system has been designed to allow participants to enter funds transfer instructions continuously, in which case settlement takes place on the central bank's books immediately (in the case of RIX, provided they are confirmed by the counterparty). BOJ-NET, however, is also used to settle on a net basis.
- Interbank guilder transfers relating to international transactions are sent through the 8007 S.W.I.F.T. system which is operated by the Netherlands Bank; net settlement of these transactions takes place over the Central Bank FA System.
- <sup>20</sup> The 8007 S.W.I.F.T. system is, for a given value day, also open from 15.00 to 17.00 on the previous business day.
- <sup>21</sup> Closing time for new payment orders is 16.15; payments can be confirmed, and thereby settled, until 16.30.
- Since mid-1994, the routine involving a single cut-off time at noon for third-party payment orders has no longer been used. Instead, the participants have to decide among themselves which cut-off times they will use for different types of third-party orders. Large-value payments can be made during any time of the day.

- The system is open for input 24 hours a day. Settlement services are limited by the indicated opening and closing times. A value day starts at 18.00 local time on the previous business day and ends at 16.15 on the value day. Third-party payments may be entered for same-day settlement until 15.00. Between 15.00 (cut-off 1) and 16.00 (cut-off 2) only cover (bank-to-bank) payments are accepted for same-day settlement. From 16.00 to 16.15 transactions are restricted to the processing of lombard credits (collateralised loans from the Swiss National Bank at a penalty rate).
- <sup>24</sup> For same-day value: there are no standard money market hours but trading typically takes place between about 7.30 and 15.30. The market is most liquid in the morning. The Bank of England intervenes in the market as necessary between 9.45 and 15.30.
- <sup>25</sup> Trading occurs among dealers for funds on deposit at Federal Reserve Banks (i.e. federal funds) as early as 6.30.
- Payments over CHIPS become final on completion of settlement, which normally occurs between 17.00 and 17.30.
  Rules are designed to ensure that settlement takes place no later than 18.00.
- <sup>27</sup> ECU payment orders can be sent (for up to 28 forward value days) through S.W.I.F.T. 24 hours a day, seven days a week. At 14.00 (GMT + 1) on each value day the netting computer calculates participants' net net positions. Messages arriving after 14.00 are processed automatically for the next value day(s).
- <sup>28</sup> There is no overnight market for ECU interbank loans. Day-to-day interbank ECU transactions are normally carried out in the Euro-markets on a TOM/NEXT basis.

Table 12 Features of selected securities settlement systems

(figures relate to 1995)

	Type <sup>1</sup>	Owner/ Manager <sup>2</sup>	No. of participants		Settlement of cash leg <sup>3</sup>	<b>Delivery</b> <sup>3</sup>
				of which direct		
Belgium						
NBB Clearing	G	СВ	209		N	N
CIK	E	В	163		N	N
Canada						
BBS <sup>4</sup>	G,E,O	B,SE,O	85	85	N	G/N
DCS <sup>5</sup>	G	B,SE,O	55	55	N	G
France						
SATURNE	G,O	СВ	450	450	N	G
RELIT	G,E,O	В	449	449	N	G/N
Germany						
DKV	G,E,O	SE	397	395	N/G	G
Italy						
Securities Settlement						
Procedures:						
Daily Procedure	G,O	CB	317	317	N	N
Monthly Procedure	E	СВ	256	256	N	N
CAT	G	CB	780	780	.6	G
Japan			_	_		
JGB registration	G	СВ	424 <sup>7</sup>	424 <sup>7</sup>	G/N	G/N
JGB book-entry	G	СВ	$360^{7}$	$360^{7}$	G/N	G/N
Netherlands						
NECIGEF	G+E+O	B+CB+SE	53	53	G	G
CB Clearing Institute	G+O	СВ	80	80	N	N
Sweden						
VPC	G+E+O	В+О	51	51	G/N	G
OM	О	О	37	37	N	N
Switzerland	9.50	_	2.10	2.10	278 (00)	
SECOM	G,E,O	В	348	348	N <sup>8</sup> /G <sup>9</sup>	G
United Kingdom	G 0	CD /CE	207	1.5	37	
CGO	G+O	CB/SE	297	15	N	G
CMO	О	СВ	61	13	N	G
United States	C	CD	0.102	0.102	C	C .
Fedwire  DTC (NDFS) <sup>10</sup>	G	CB D CE O	8,192	8,192	G	G
DIC (NDFS),	E,O	B,SE,O	522	522	N	G

 $<sup>^1</sup>$  G = Government securities, E = Equity, O = Other.  $^2$  B = Banks, CB = Central Banks, SE = Stock Exchange, O = Other.  $^3$  G = Gross, N = Net.  $^4$  The book-based system of The Canadian Depository for Securities Limited (CDS).  $^5$  The real-time, on-line debt-clearing service of CDS, which commenced operation during August 1994.  $^6$  Deliveries free of payments.  $^7$  End-year.  $^8$  Until 24th March 1995.  $^9$  Since 27th March 1995.  $^{10}$  Next-day funds settlement.

Table 12 (cont.)

	Delivery lag	Central Securities Depository	Cash Settlement Agent	Number of transactions (thousands)	Value of transactions (USD billions) <sup>11</sup>	Ratio of transactions value to GDP (at annual rate)
Belgium						
NBB Clearing	T+2/T+3 <sup>12</sup>	NBB	NBB	198	2,888.9	10.73
CIK		CIK	NBB	1,750	18.6	0.07
Canada	•	CIII	NBB	1,750	10.0	0.07
BBS <sup>4</sup>	up to T+3	CDS	$B^{14}$			
DD5	up to 113	CDS	Б	{10,200 <sup>15</sup>	{28,886 <sup>15</sup>	{50.4
DCS <sup>5</sup>	up to T+3	CDS	$B^{16}$	(10,200	[20,000	[50.1
France	up to 115	CDS	D			
SATURNE	Т	Banque de	СВ	316	8,824	5.75
		France	02	510	0,02	5.7.5
RELIT	T+3 <sup>17</sup>	SICOVAM	СВ		8,446	5.50
Germany					,	
DKV	T+0-40	DKV	СВ	23,400	8,286	3.4
Italy				,	,	
Securities Settlement						
Procedures:						
Daily Procedure	T+3	CAT	СВ		9,139	8.4
Monthly Procedure	T+15/45	Monte Titoli	CB		152	0.1
CAT	Т	CAT	.6	960.5	967	0.9
Japan						
JGB registration	T+7	СВ	СВ	598.3	17,417	3.4
JGB book-entry	T+7	СВ	СВ	486.5	26,730	5.2
Netherlands						
NECIGEF	T+3	NECIGEF	KAS-ASS	1,028		
CB Clearing Institute	T,T+3	CB	CB	3	62.3	0.16
Sweden						
VPC	$T+2, T+3^{18}$	VPC	CB	2,912	5,821	25.4
OM	T+3		CB	31,638	931	4.1
Switzerland						
SECOM	T+3	SEGA	CB	3,952	752	2.5
United Kingdom						
CGO	T+1	•	CB	747.5	25,254	22.8
CMO	T	CB	СВ	269.0	5,216	4.7
United States						
Fedwire	T,T+1	CB	CB	12,800	149,800	20.7
DTC (NDFS) <sup>10</sup>	T+5	DTC	DTC	119,000	41,000	5.7

<sup>&</sup>lt;sup>11</sup> Converted at yearly average exchange rate. <sup>12</sup> T+2 for Treasury bills; T+3 for bonds. <sup>13</sup> Seller delivery. <sup>14</sup> A single chartered bank. <sup>15</sup> Figures are for the twelve months ended 31st October 1995. <sup>16</sup> A single chartered bank, though not the same bank as for the BBS. <sup>17</sup> When processed by the "SLAB" system (special delivery service by bilateral agreements), the delivery occurs same day. <sup>18</sup> Same-day delivery and settlement is also possible under specific conditions.

Table 13

S.W.I.F.T. traffic: intra G-10 messages flows in 1995

(number of messages, in thousands)

From\To	BE	CA	FR	DE	IT	JP	NL
Belgium	4,452	171	2,158	1,935	1,052	327	2,093
Canada	160	3,536	251	456	198	268	98
France	1,892	282	13,387	3,414	2,677	536	961
Germany	1,244	351	2,254	6,734	2,645	865	1,705
Italy	827	176	2,216	3,237	4,959	450	572
Japan	281	248	516	1,125	495	2,989	173
Netherlands	1,711	122	825	2,673	596	179	1,871
Sweden	254	41	301	1,158	276	102	252
Switzerland	1,401	444	2,482	5,042	2,123	624	1,019
United Kingdom	2,390	1,056	3,263	6,373	3,182	3,271	1,616
United States	1,771	2,771	2,985	5,791	2,762	5,603	2,546
Total G-10	16,382	9,197	30,639	37,940	20,964	15,214	12,907
Total non-G-10	4,621	1,835	7,148	18,566	7,517	8,274	3,120
Total all countries	21,003	11,032	37,786	56,505	28,481	23,488	16,027

From\To	SE	СН	GB	US	Total G-10	Non-G-10	All countries
Belgium	212	1,913	2,591	2,449	19,354	4,442	23,796
Canada	35	481	1,064	3,569	10,117	2,269	12,386
France	245	1,913	3,656	4,769	33,731	7,273	41,004
Germany	587	3,318	3,848	5,794	29,343	14,481	43,825
Italy	200	1,725	3,157	3,734	21,254	6,330	27,585
Japan	77	566	2,632	7,080	16,181	8,567	24,749
Netherlands	180	1,177	1,817	2,408	13,558	3,346	16,904
Sweden	1,456	289	1,435	1,435	6,998	3,022	10,020
Switzerland	243	5,677	3,476	5,859	28,389	7,359	35,749
United Kingdom	1,075	3,610	16,387	11,840	54,062	16,973	71,035
United States	948	4,535	8,897	17,270	55,879	43,380	99,259
Total G-10	5,256	25,204	48,960	66,204	288,867	117,443	406,311
Total non-G10	2,715	6,626	17,056	45,434	122,910	74,354	197,265
Total all countries	7,971	31,830	66,015	111,639	411,778	191,798	603,575

Source: S.W.I.F.T.

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