BANK FOR INTERNATIONAL SETTLEMENTS

## STATISTICS ON

## PAYMENT SYSTEMS IN

## **ELEVEN DEVELOPED COUNTRIES**

figures for 1990

Basle December 1991

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

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### FOREWORD

This is the third of a regular series of updates of the statistical addendum contained in the manual on "Payment Systems in Eleven Developed Countries", published by the central banks of the Group of Ten countries under the aegis of the Bank for International Settlements. Although considerable improvements have been made in the quality of the statistical data, they are not in all cases complete or uniform and in some cases estimates have had to be made (see the note on the methodology and sources used at the end of this volume). The margin of error is thought, however, to be small enough to allow comparisons of trends in the various countries taken individually or as a group.

Note: In tables a dot instead of a figure means "data not available" or "not applicable".

### TABLE 1

## Relative importance of transferable deposits and number of accounts\*

Countries	Value of transferable deposits (USD billions)	Value of transferable deposits per capita (USD)	Number of accounts (millions)	Number of accounts per inhabitant
Belgium	29.2	2,923.0	10.0	1.0
Canada	84.2	3,139.3		
France	402.8	7,116.0	111.5	2.0
Germany	297.7	3,736.0	75.0	0.9
Italy	353.0	6,123.0	22.8	0.4
Japan	1,056.3	8,546.1	•	
Netherlands	52.8	3,516.7	16.0	1,1
Sweden	101.1	11,769	29.2	3.4
Switzerland	42.2	6,259		
United Kingdom	462.9	8,064	139.2	2.4
United States	589.5	2,349	171	0.7

at end-1990

\* For explanation of figures see relevant country table.

### TABLE 2

### Share of currency in circulation in narrow and broad money stock and as a percentage of GNP/GDP\*

Countries	Percentage of narrow money stock		Percentage of broad money stock		Percentage of GNP/GDP	
	1980	1990	1980	1990	1980	1990
Belgium	43.7	30.4	•		10.2	6.5
Canada	38.9	48.8	6.1	6.1	3.3	2.9
France	18.2	15.4	7.1	5.7	5.2	3.9
Germany	32.6	27.1	11.4	10.6	5.7	6.5
Italy	14.6	14.5	7.1	5.8	6.3	5.3
Japan	29.2	36.0	6.2	5.5	8.5	10.0
Netherlands	34.0	29.0	10.0	8.7	6.5	7.2
Sweden	•	•	10.8	9.7	6.4	4.6
Switzerland	37.4	32.7	10.8	7.1	12.4	8.1
United Kingdom	•	6.0		3.2	4.4	2.8
United States	30.0	29.9	5.9	6.0	4.3	4.5

\* For explanation of figures and definitions of money stock see relevant country table.

### TABLE 3

### Relative importance of points of entry into the payment system $\!\!\!*$

at end-1990	ł
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Countries	Number of institutions	Number of branches	Number of inhabitants per branch
Belgium	122	13,452	742
Canada	2,920	13,269	2,022
France	779	42,536	1,331
Germany	4,594	77,326	1,031
Italy	1,065	32,162	1,790
Japan	6,279	68,142	1,814
Netherlands	153	8,161	1,839
Sweden	138	5,136	1,672
Switzerland	458	8,021	842
United Kingdom	637	41,431	1,385
United States	31,842	107,703	2,330

\* For explanation of figures see relevant country table.

### TABLE 4

## Number of cash dispensers, ATMs and EFT POS terminals\*

at end-1990	
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	Cash dispense	ers and ATMs	EFT POS terminals		
Countries	Number of machines installed	Number of inhabitants per machine	Number of terminals installed	Number of inhabitants per terminal	
Belgium	939	10,636	28,253	353	
Canada	11,730	2,288	9,250	2,901	
France	14,428	3,923	180,000	314	
Germany	11,300	7,053	23,152	3,442	
Italy	9,770	5,893	22,185	2,595	
Japan	88,335	1,399	10,170	12,152	
Netherlands	2,700	5,559	2,223	6,752	
Sweden	1,992	4,313	6,090	1,411	
Switzerland	2,262	2,985	2,590	2,606	
United Kingdom	17,000	3,376	110,000	522	
United States	93,000	2,700	60,500	4,149	

\* For explanation of figures see relevant country table.

### TABLE 5

### Relative importance of cashless payment instruments\*

Countries	Cheques	Payments by credit card	Payments by debit card at POS	Paper- based credit transfers	Paperless credit transfers	Direct debits
Belgium	24.0	1.9	9.2	39.9	18.3	6.7
Canada	66.8	26.7	0.1	-	3.6	2.8
France	59.3	-	14.2	1.1	15.1	10.3
Germany	9.9	1.5	0.1	24.7	26.7	37.1
Italy	43.9	2.5	0.3	36.0	14,4	2.9
Japan	9.9	21.8	-	14.6	15.9	37.8
Netherlands	15.3	< 0.5	1.6	36.7	25.4	21.1
Sweden	13.8	1.9	15.4	31.6	37.3	•
Switzerland	9.7	4.0	2.3	28.4	52.5	3.1
United Kingdom	51.0	11.0	3.0	7.9	13.6	13.4
United States	82.0	15.4	0.3	-	1.5	0.7

as a percentage of total volume of transactions in 1990

\* For explanation of figures see relevant country table.

. Territorial area: 30,500 sq.kms.

. Population: 9.99 million

. Gross national product in 1990: (USD/BEF)  $195.17\,/\,6,521$  billion

. Per capita GNP: (USD/BEF) 19,542/652,905

. Exchange rate: (BEF per USD) 1990 average: 33.41; end-1990: 30.94

### A.1 Monetary aggregates

at end-1990

Items	Absolute USD/BEF (billions)	Per capita USD/BEF	Percentage of GNP	Number of accounts (millions)	Number of accounts per inhabitant
Total money supply <sup>1</sup>	171.3 5,298.9	17,149.0 530,581.0	81.3	5	ŧ
Currency <sup>2</sup>	13.4 413.7	1,339.0 41,424.0	6.3		÷
Transferable deposits <sup>2</sup>	29.2 903.2	2,923.0 90,438.0	13.9	10.0	1.0

<sup>1</sup> Financial assets with a maximum maturity of one year held by non-financial companies and private individuals. <sup>2</sup> Held by non-financial companies and private individuals.

		at end-199	0		
Categories of institution	Number of accounts (millions)	Share of market (%)	Value of accounts USD/BEF (billions)	Value of accounts per capita USD/BEF	Share of market (%)
Commercial banks	4.2	41.7	18.8 580.9	1,880.0 58,166.0	64.3
Savings banks	1.5	15.4	2.4 73.5	<b>238</b> .0 7 <b>,3</b> 60.0	8.1
Public credit institutions	3.1	31.5	5.0 156.0	505.0 15,620.0	17.3
Post Office	1.1	11.5	3.0 92.8	300.0 9,292.0	10.3
TOTAL	9.9	100.0	29.2 903.2	2,923.0 90,438.0	100.0

### A.2 Transferable deposits and number of accounts per category of institution at end-1990

	at enu-	1550	
Categories of institution			Number of inhabitants per branch
Commercial banks	87	3,487 1	2,864
Savings banks	28	3,853 ²	2,592
Public credit institutions	6	2,904 <sup>3</sup>	3,439
Sub-total	121	10,244	975
Post Office	1	3,208	3,113
TOTAL	122	13,452	742
Central bank	1	23 4	•

### **B.1** Institutional framework

at end-1990

<sup>1</sup> 105 non-full-size branches excluded. <sup>2</sup> 8,285 non-full-size branches excluded. <sup>3</sup> 925 non-full-size branches excluded.
<sup>4</sup> One of which is located in Luxembourg.

### B.2 Cash dispensers, ATMs and EFT POS terminals at end-1990

Cash dispensers and ATMs					EFT POS		
of	Number of cash dispensers	Number of ATMs	Total number of cash dispensers and ATMs	Number of inhabitants per cash dispenser and ATM	Number of	Number of EFT POS terminals <sup>3</sup>	Number of inhabitants per EFT POS terminal
1	•	846	846	•	5	28,253	353
2	93	•	93	•	•	•	•
3	•	•	939	10,636	•	•	•

<sup>1</sup> Including Postal Cheque Office. <sup>2</sup> Among which 4 non-bank networks (2 large retailers and 2 credit card issuers). <sup>3</sup> Estimate. Some double-counting is inevitable.

## C. Relative importance of cashless payment instruments in the payment system

Instruments	Volume of transactions (millions)	Volume per capita	Percentage of total volume	Value of transactions USD/BEF (billions)	Value per capita USD/BEF	Percentage of total value
Cheques issued <sup>2</sup>	206.6	20.7	24.0	364.5 12,179,1	36,501.0 1,219,498.4	4.1
Payments by credit card <sup>3</sup>	16.5	1.7	1.9	2.1	208.0	0.0
Payments by debit card at EFT POS	79.0	7.9	9.2	4.1	406.7	
Paper-based credit transfers <sup>4</sup>	343.5	34.4	39.9	135.7 8,041.4 268.663.0	13,586.7 805,188.2 26,901,339.0	90.0
Paperless credit transfers	158.0	15.8	18.3	513.7 17,163.1	51,438.1 1,718,548.4	5.7
Direct debits <sup>5</sup> .	57.8	5.8	6.7	9.7 325.0	. 974.2 32,546.4	0.1
TOTAL	861.5	86.3	100.0	8,935.5 298,535.3	894,716.2 29,892,468.9	100.0

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<sup>1</sup> Some double-counting is inevitable owing to the settlement at regular intervals of credit card account balances through other payment media. Estimates for all statistics except for payments by debit cards at EFT POS and by credit cards. Interbank (as well as corporate) payments are included in the data for some instruments and therefore considerably inflate them when expressed in value. <sup>2</sup> Postal cheques and drafts included. <sup>3</sup> Including transactions by holders of travel and entertainment cards, and partly data for the Grand Duchy of Luxembourg. <sup>4</sup> Inpayment transfers included. <sup>5</sup> Break in data series for cheques issued and direct debits.

. Territorial area: 9.9 million sq.kms.

. Population: 26.8 million

. Gross national product in 1990: (USD/CAD) 550.0/647.6 billion

. Per capita GNP: (USD/CAD) 20,835.2/24,311.8

. Exchange rate: (CAD per USD) 1990 average: 1.1668; end-1990: 1.1599; December 1990: 1.1600

### A.1 Monetary aggregates

at end-1990

Items	Absolute USD/CAD (billions)	Per capita USD/CAD	Percentage of GNP <sup>1</sup>	Number of accounts (millions)	Number of accounts per inhabitant
Total money supply <sup>2</sup>	388.2 450.3	14,468.2 16,782.5	69.5		
Currency <sup>3</sup>	16.4 19.0	611.5 709.3	2.9	•	•
Transferable deposits	84.2 97.7	3,139.3 3,641.5	15.1	•	•

<sup>1</sup> Calculated using Canadian dollar figures to avoid distortions introduced by using different exchange rates to convert to US dollars. <sup>2</sup> M2+, Table E1, <u>Bank of Canada Review</u>; average-of-Wednesday data for December 1990. <sup>3</sup> Currency outside banks, Table E1, <u>Bank of Canada Review</u>; average-of-Wednesday data for December 1990.

### A.2 Transferable deposits and number of accounts per category of institution

at end-1990

Categories of institution	Number of accounts (millions)	Share of market (%)	Value of accounts USD/CAD (billions)	Value of accounts per capita USD/CAD	Share of market (%)
Chartered banks	•	•	63.5 73.6	2,365.1 2,743.4	75.3
Local credit unions and caisses populaires	•	٠	8.9 10.4	332.5 385.7	10.6
Trust and mortgage loan companies	•	۰	9.8 11.4	$\begin{array}{c} 366.4\\ 425.0\end{array}$	11.7
Governmental savings institutions <sup>1</sup>	•	•	2.0 2.3	$163.8^2$ $190.0^2$	2.4
Post Office	•	٠	n.a.	•	•
TOTAL	•	•	84.2 97.7	3,139.3 3,641.5	100.0

<sup>1</sup> End of period is 31st March 1991. <sup>2</sup> Population of Alberta and Ontario only.

B.1	Institutional framew	ork
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### at end-1990

Categories of institution	Number of institutions	Number of branches	Number of inhabitants per branch
Chartered banks	661	7,446	3,604
Local credit unions and caisses populaires	2,737	3,818	7,028
Trust and mortgage loan companies	1152	1,838	14,599
Governmental savings institutions	23	167	73,9024
Sub-total	2,920	13,269	2,022
Post Office	•	•	•
TOTAL	2,920	13,269	2,022
Central bank	1	9	•

<sup>1</sup> Six operate nationwide. <sup>2</sup> Only a few operate nationwide and not all accept transferable deposits. <sup>3</sup> Operate only in Alberta and Ontario. <sup>4</sup> Population of Alberta and Ontario only.

## **B.2** Cash dispensers, ATMs and EFT POS terminals

### at end-1990

Cash dispensers and ATMs				EFT POS			
of	Number of cash dispensers	Number of ATMs		per cash	of	Number of EFT POS terminals	Number of inhabitants per EFT POS terminal
401,2	•	•	11,7301,3	2,288	10	9,2501.4	2,901

<sup>1</sup> Estimate. <sup>2</sup> Of which three are owned or operated by non-deposit-taking institutions. <sup>3</sup> Of which some 11,700 are owned by member institutions of the Canadian Payments Association. <sup>4</sup> Excluding some 150,000 POS terminals that are used solely for credit card authorisation.

C. Relative importance of cashless payment instruments
in the payment system

1990

Instruments	Volume of transactions* (millions)	Volume per capita	Percentage of total volume	Value of transactions* USD/CAD (billions)	Value per capita USD/CAD	Percentage of total value
Cheques issued	2,220.0	83.3	66.8	17,824.6 20,798.8	669,133.8 780,786.2	99.1
Payments by credit card	887.7	33.3	26.7	51.2 59.7	1,919.7 2,240.0	0.3
Payments by debit card at EFT POS Paper-based	3.3	0.1	0.1	0.1 0.2	5.3 6.2	0.0
credit transfers Paperless credit transfers	117.9	4.5	3.6	87.6 102.3	3,292.0 3,841.4	0.5
of which: - large-value transfers - transfers initiated at			•	•		
ATMs	25.2	1.0	0.8	1.6 1.9	60.8 71.0	0.0
- direct credits	92.7	3.5	2.8	86.0 100.4	3,231.2 3,770.4	0.5
Direct debits	92.0	3.4	2.8	18.8 22.0	708.0 826.1	0.1
TOTAL	3,320.9	124.6	100.0	17,982.3 20,983.0	675,058.8 787,699.9	100.0

\* All figures are estimates.

. Territorial area: 551.2 thousand sq.kms.

. Population: 56.6 million

. Gross domestic product in 1990: (USD/FRF) 1,190.4/6,484.1 billion

. Per capita GNP: (USD/FRF) 21,031/114,560

. Exchange rate: (FRF per USD) 1990 average: 5.4472; end-1990: 5.129

### A.1 Monetary aggregates

at end-1990

Items	Absolute USD/FRF (billions)	Per capita USD/FRF	Percentage of GDP	Number of accounts (millions)	Number of accounts per inhabitant
Total money supply	873.0 4,477.5	15,424 79,108	69.1	•	•
Currency	49.8 255.5	880 4,514	3.9	•	•
Transferable deposits	402.8 2,065.8	7,116 36,498	31.9	111.5	2.0

### A.2 Transferable deposits and number of accounts per category of institution at end-1990

Categories of institution	Number of accounts (millions)	Share of market (%)	Value of accounts USD/FRF (billions)	Value of accounts per capita USD/FRF	Share of market (%)
Commercial banks	19.7	17.7	129.2 662.7	2,283 11,708	32.1
Savings banks	38.8	34.8	107.8 553.2	1,906 9,774	26.8
Co-operative and rural banks	23.1	20.7	74.0 379.3	1,306 6,701	18.3
Post Office	29.9	26.8	91.8 470.6	1,621 8,315	22.8
TOTAL	111.5	100.0	402.8 2,065.8	7,116 36,498	100.0

at end-1990							
Categories of institution	Number of institutions	Number of branches	Number of inhabitants per branch				
Commercial banks	419	10,212	5,542				
Savings banks	186	4,307	13,141				
Co-operative and rural banks	173	11,050	5,122				
Sub-total	778	25,569	2,214				
Post Office	1	16,967	3,336				
TOTAL	779	42,536	1,331				
Central bank	1	223					

### **B.1 Institutional framework**

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### B.2 Cash dispensers, ATMs and EFT POS terminals at end-1990\*

	Cash dispensers and ATMs					EFT POS			
of	Number of cash dispensers	Number of ATMs	aach	per cash dispenser	Number of	Number of EFT POS terminals	Number of inhabitants per EFT POS terminal		
1	•	•	14,428	3,923	1	180,000	314		

\* Estimates.

# C. Relative importance of cashless payment instruments in the payment system

Instruments	Volume of transactions (millions)	Volume per capita	Percentage of total volume	Value of transactions USD/FRF (billions)	Value per capita USD/FRF	Percentage of total value
Cheques issued <sup>1</sup>	4,876.8	86.2	59.3	3,448.2 18,783.2	60,922.6 331,858.7	29.6
Payments by credit card		•	·			
Payments by debit card at EFT POS <sup>2</sup>	1,167.3	20.6	14.2	69.7 379.4	1,230.6 6,703.2	0.6
Paper-based credit transfers <sup>3</sup>	92.7	1.6	1.1	6,820.6 37,153.3	120,505.3 656,418.7	58.6
Paperless credit transfers	1,241.2	21.9	15.1	1,054.6 5,744.4	18,631.7 101,491.2	9.0
Direct debits	844.8	14.9	10.3	253.7 1,382.2	4,483.1 24,420.5	2.2
TOTAL	8,222.8	145.2	100.0	11,646.8 63,442.5	205,773.3 1120,892.3	100.0

1990

<sup>1</sup> 135 million truncated cheques for a value of FRF 207 billion were not routed via "official" circuits. <sup>2</sup> Of which 40% (by volume) did not give rise to electronic payment. <sup>3</sup> Credit transfers of a purely interbank nature: 7.9 million operations for a value of FRF 34,173.6 billion.

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. Territorial area: 357.0 thousand sq.kms.

. Population: 79.7 million

. Gross national product in 1990: (USD/DEM) 1,500.8 / 2,425.5 billion (western Germany (old Länder) only)

A.1 Monetary aggregates

. Per capita GNP: (USD/DEM) 23,598 / 38,1371

. Exchange rate: (DEM per USD) 1990 average: 1.6161 (only used for GNP); end-1990: 1.4940

#### at end-1990 Number of Absolute Percentage Number of Per capita accounts Items **USD/DEM** accounts of **USD/DEM** per (billions) GNP (millions) inhabitant Total money supply $(M3)^1$ ..... 1,006.0 12,622 1,502.9 18,857 62.0Currency<sup>2</sup> 106.21,332 158.61,990 6.5Transferable deposits<sup>3</sup> 297.73,736 444.8 5,581 18.3 75.0 0.94

 $^{1}$  M2 + savings deposits of domestic non-banks at statutory notice.  $^{2}$  Excluding banks' cash balances.  $^{3}$  Sight deposits of domestic non-banks (including deposits held at the central bank).

### A.2 Transferable deposits and number of accounts per category of institution at end-1990

Categories of institution	Number of accounts (millions) <sup>1</sup>	Share of market (%)	Value of accounts USD/DEM (billions)	Value of accounts per capita USD/DEM	Share of market (%)
Commercial banks <sup>2</sup>	14.4	19.2	118.1 176.4	1,481 2,213	39.7
Savings banks <sup>3</sup>	36.7	48.9	107.6 160.8	1,351 2,018	36.1
banks <sup>3</sup>	18.9	25.2	58.4 87.3	733 1,095	19.6
Postbank	5.0	6.7	13.6 20.3	171 255	4.6
TOTAL	75.0	100.0	297.7 444.8	3,736 5,581	100.0

<sup>1</sup> Accounts of domestic non-banks, partly estimated. <sup>2</sup> Including mortgage banks, instalment sales financing institutions, banks with special functions, other banks and the central bank.<sup>3</sup> Including central institutions.

at end-1550							
Categories of institution	Number of institutions	Number of branches <sup>1</sup>	Number of inhabitants per branch				
Commercial banks <sup>2</sup>	415	7,186	11,091				
Savings banks <sup>3</sup>	781	20,128	3,960				
Co-operative and rural banks <sup>3</sup>	3,384	20,819	3,828				
Sub-total	4,580	48,133	1,656				
Postbank	144	29,193	2,730				
TOTAL	4,594	77,326	1,031				
Central bank	135	2105	•				

### **B.1** Institutional framework

at end-1990

<sup>1</sup> Branches = total number of bank offices. <sup>2</sup> Including mortgage banks, instalment sales financing institutions, banks with special functions and building and loan associations. <sup>3</sup> Including central institutions. <sup>4</sup> Postal giro offices (Postgiroämter). <sup>5</sup> The Bundesbank as a legal entity comprises the Central Office (in Frankfurt am Main) and 11 Land Central Banks as well as 195 branches in the old Länder; in addition it has established the Provisional Administrative Office (Vorläufige Verwaltungsstelle) in Berlin and 15 branches in connection with the monetary union with the former German Democratic Republic (now referred to as the new Länder) which come into effect on 1st July 1990.

### **B.2** Cash dispensers, ATMs and EFT POS terminals

at end-1990

	Cash di	ispensers a	EFT POS				
of	Number of cash dispensers	Number of ATMs	Total number of cash dispensers and ATMs	per cash	of	Number of EFT POS terminals	Number of inhabitants per EFT POS terminal
4	•	•	11,3001	7,053	11	23,152²	3,442

<sup>1</sup> Of which 9,300 in the eurocheque pool; units not eligible for the pool estimated at 2,000. Exact breakdown between ATMs and cash dispensers is impossible. <sup>2</sup> Electronic cash (eurocheque card): 7 networks with 5,428 terminals; banking associations and non-banks (particularly oil companies) as operators; some terminals also accept credit cards. AllCard POS (credit cards and some eurocheque cards): 1,190 terminals, organised by non-banks. Makatel credit card authorisation with electronic clearing: 7,588 terminals, organised by non-banks. Eurocard-START/Lufthansa association of travel agents, with electronic clearing in paperless exchange of data media: 8,946 terminals in 2 networks, organised by non-banks. Excluding terminals that are only used for credit card authorisation and card-operated telephones (Telekarte).

Instruments	Volume of transactions (millions) <sup>1</sup>	Volume per capita	Percentage of total volume	Value of transactions USD/DEM (billions) <sup>1</sup>	Value per capita USD/DEM	Percentage of total value
Cheques issued	784.0	10	9.9	2,675.4 3,997.0	33,568.0 50,151.0	15.8
Cheques				-,	••••	
paperless collect. <sup>2,3</sup>	(573.0)	(7)	(7.2)	(152.6) (228.0)	(1,915.0) (2,861.0)	(0.9)
Payments by				(===(,,))	(=,00x10)	(0.0)
credit card <sup>4</sup>	118.2	1	1.5	15.0	188.0	
Payments by debit card at EFT				22.4	281.0	0.1
POS <sup>2.5</sup>	3.5	0	0.1	0.1	2.0	
Paper-based				0.2	3.0	0.0
raper-based credit transfers <sup>6</sup>	1,955.0	25	24.7	9,987.1 14,920.8	125,309.0 187,212.0	59.1
Paperless credit				14,020.0	107,212.0	00.1
transfers <sup>6,7</sup>	2,118.0	27	26.7	2,496.8 3,730.2	31,327.0 46,803.0	14.8
Direct debits <sup>8</sup>	2,939.5	37	37.1	1,722.8	21,616.0	
				2,573.8	32,294.0	10.2
TOTAL	7,918.2	99	100.0	16,897.2 25,244.4	212,010.0 316,743.0	100.0

### C. Relative importance of cashless payment instruments in the payment system

1990

<sup>1</sup> Partly estimated, including payments to/from and within the new Länder as from 1st July 1990 (monetary union with the former German Democratic Republic). <sup>2</sup> Not included in direct debits in order to avoid double-counting. <sup>3</sup> Including the paperless collection of cheques under the ESER procedure of the former GDR as from 1st July 1990. <sup>4</sup> Excluding retail 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. <sup>5</sup> Electronic cash transactions only. <sup>6</sup> Excluding interbank transfers. Interbank transfers via central bank, partly estimated:

	Volume of transactions (millions)	Value of transactions USD/DEM (billions)
Express conventional		5,295
local credit transfers	1.1	7,911
Clearing house		73,945
credit transfers of which:	196.6	110,474
Daily electronic clearing		(16,729)
(EAF), paperless credit transfers	(2.3)	(24,993)
Express intercity		4,384
credit transfers	1.2	6,550

<sup>7</sup> Including customers' paper-based credit transfers routed into the interbank paperless system (EPT procedure) by the bank to which they are first submitted, the volume of transactions amounts to 2,261.0 million. Approximately 55.5% of all credit transfers are thus processed in paperless form. <sup>8</sup> Including cash-dispenser/ATM withdrawals made with eurocheque cards at banks other than that issuing the card.

- 21 -

. Territorial area: 301,287 sq.kms.

. Population: 57.6 million

. Gross national product in 1990: (USD/ITL) 1,074.0 / 1,286,737 billion.

. Per capita GNP: (USD/ITL) 18,650 / 22,340,000

. Exchange rate: (LIT per USD) 1990 average: 1,198.1; end-1990: 1,130.2

### A.1 Monetary aggregates

at end-1990

Items	Absolute USD/ITL (billions)	Per capita USD/ITL	Percentage of GNP	Number of accounts (millions)	Number of accounts per inhabitant
Total money supply <sup>1</sup>	1,032 1,165,846	17,916 20,248,819	90.6	•	•
Currency	60 67,802	1,042 1,177,609	5.3	•	•
Transferable deposits	353 398,439	6,123 6,920,227	31.0	22.8	0.40

<sup>1</sup> Comprises: currency, bank and postal deposits, certificates of deposit and Treasury bills.

### A.2 Transferable deposits and number of accounts per category of institution at end-1990

Categories of institution	Number of accounts (millions)	Share of market (%)	Value of accounts USD/ITL (billions)	Value of accounts per capita USD/ITL	Share of market (%)
Commercial banks	. 11.8	52.0	199 224,872	3,456 3,905,655	56.4
Savings banks	6.7	29.4	94 105,897	1,627 1,839,256	26.6
Co-operative and rural banks	3.7	16.4	53 59,413	913 1,031,906	14.9
Sub-total	22.3	97.8	345 390,182	5,996 6,776,817	97.9
Post Office	0.5	2.2	7 8,257	127 143,410	2.1
TOTAL	22.8	100.0	353 398,439	6,123 6,920,227	100.0

Categories of institution	Number of institutions	Number of branches	Number of inhabitants per branch	
Commercial banks	153	7,940	7,251	
Savings banks	86	4,697	12,258	
Co-operative and rural banks	825	5,084	11,325	
Sub-total	1,064	17,721	3,249	
Post Office	1	14,441	3,987	
TOTAL	1,065	32,162	1,790	
Central bank	1	98	•	

## **B.1** Institutional framework

at end-1990

## B.2 Cash dispensers, ATMs and EFT POS terminals

at end	-1990
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	Cash di	spensers a	EFT POS <sup>2</sup>				
of	Number of cash dispensers	Number of ATMs	Total number of cash dispensers and ATMs	per cash	Number of	Number of EFT POS terminals	Number of inhabitants per EFT POS terminal
1	•	•	9,770	5,893	•	22,185	2,595

 $^1$  The data relate to the whole banking system.  $^2$  The figure comprises the POS terminals installed by a sample group of seventy-five banks which account for approximately 80% of demand deposits of the entire banking system.

P*************************************	÷					
Instruments	Volume of transactions (millions)	Volume per capita	Percentage of total volume	Value of transactions USD/ITL (billions) <sup>2</sup>	Value per capita USD/ITL <sup>2</sup>	Percentage of total value
Cheques issued <sup>2</sup>	735.7	12.8	43.9	1,756.2 2,104,106.0	30,502.0 36,544,845.0	9.0
Payments by credit card	42.2	0.7	2.5	6.4	112.0	
Payments by debit card at EFT				7,725.0	134,170.0	0.0
POS	5.4	0.1	0.3	0.7	13.0	
Paper-based				898.0	15,597.0	0.0
credit transfers <sup>3</sup>	604.3	10.5	36.0	5,210.2	90,493.0	
of which:				6,242,343.0	108,419,185.0	26.6
- large value						
transfers <sup>4</sup>	1.0	0.0	0.1	4,601.2	79,916.0	
Paperless credit				5,512,747.0	95,747,308.0	23.5
transfers	240.9	4.2	14.4	12,602.5	218,885.0	
0.141				15,099,098.0	262,246,387.0	64.2
of which: - large value						
transfers <sup>5</sup>	3.1	0.1	0.2	9,031.7	156,865.0	
- transfers				10,820,824.0	187,939,836.0	46.0
initiated at ATMs	0.1	0.0	0.0	0.0	0.0	
111115	0.1	0.0	0.0	27.0	469.0	0.0
- others	237.7	4.1	14.2	3,570.9	62,020.0	10.0
				4,278,247.0	74,306,082.0	18.2
Direct debits	49.5	0.8	2.9	38.6	670.0	
				46,251.0	803,303.0	0.2
TOTAL	1,678.0	29.1	100.0	19,614.7	340,676.0	
1			1		1	

### C. Relative importance of cashless payment instruments in the payment system

19901

<sup>1</sup> The figures for payment operations effected by bank instruments are taken from a sample group of seventy-five banks accounting for approximately 80% of the demand deposits of the entire banking system. The data concerning the other payment operations (postal instruments, credit cards, interbank transfers) relate to the entire system. <sup>2</sup> Bank cheques issued to withdraw cash are not included; they accounted for 57 million (volume) and Lit. 35,000 billion (value). <sup>3</sup> Comprises: interbank transfers, inpayments to postal current accounts (generally made in cash or by banker's draft) and bank credit transfers executed in paper form. <sup>4</sup> Consisting of interbank funds transfers and transfers between banks and the Bank of Italy or the Treasury effected, in paper form, through the clearing system or the Bank of Italy Settlement System (BISS). <sup>5</sup> Interbank transfers through BISS, Electronic Memorandum and SIPS.

23,500,421.0

408,163,488.0

. Territorial area: 377,737.1 sq.kms.

. Population: 123.6 million

. Gross national product in 1990: (USD/JPY) 2,960.6 / 428,667.5 billion

. Per capita GNP: (USD/JPY) 23,953.1 / 3,468,183.7

. Exchange rate: (JPY per USD) 1990 average: 144.79; end-1990: 135.4

### A.1 Monetary aggregates

at end-1990

Items	Absolute USD/JPY (billions)	Per capita USD/JPY	Percentage of GNP	Number of accounts (millions)	Number of accounts per inhabitant	
Total money supply						
$(M3 + CDs) \dots$	5,880.6	47,577.7				
	796,227.3	6,441,968.4	185.7	•	•	
Currency	317.7	2,570.4				
-	43,017.2	348,035.6	10.0	•	•	
Transferable deposits*	1,056.3	8,546.1				
•	143,029.8	1,157,199.0	33.4	•	•	

\* Figures for post offices included here are those of end-March 1990.

### A.2 Transferable deposits and number of accounts per category of institution

at end-1990

Categories of institution	1 0000000000000000000000000000000000000		Value of accounts USD/JPY (billions)	Value of accounts per capita USD/JPY	Share of market (%)
Commercial banks <sup>1</sup>	272.4	•	752.7 101,919.2	6,089.8 824,589.0	71.2
Financial institutions				,	
for small businesses <sup>2</sup>	90.1		142.2	1,150.5	
			19,259.9	155,824.4	13.5
Financial institutions					
for agriculture, forestry			04.1		
and fisheries <sup>3</sup>	•	•	84.1	680.4	
			11,380.4	92,074.4	8.0
Post Office <sup>4</sup>	76.0		77.3	625.4	
		2	10,470.3	84,711.2	7.3
TOTAL	•	•	1,056.3	8,546.1	
			143,029.8	1,157,199.0	100.0

<sup>1</sup> City banks, regional banks, member banks of the Second Association of Regional Banks, long-term credit banks, trust .banks. <sup>2</sup> Credit associations, The Shoko Chukin Bank, credit co-operatives, labour credit associations. <sup>3</sup> The Norinchukin Bank, agricultural co-operatives, fishery co-operatives. <sup>4</sup> As at end-March 1990.

at end-1990							
Categories of institution	Number of institutions	Number of branches	Number of inhabitants per branch				
Commercial banks <sup>1</sup>	154	14,642	8,441				
Financial institutions for small businesses <sup>2</sup> .	906	11,480	10,767				
Financial institutions for agriculture, forestry and fisheries <sup>3</sup>	5,2184	18,6124	6,641				
Sub-total	6,278	44,734	2,763				
Post Office <sup>4</sup>	1	23,408	5,280				
TOTAL	6,279	68,142	1,814				
Central bank	1	34	•				

### **B.1** Institutional framework

at end-1990

<sup>1</sup> City banks, regional banks, member banks of the Second Association of Regional Banks, long-term credit banks, trust banks. <sup>2</sup> Credit associations, The Shoko Chukin Bank, credit co-operatives, labour credit associations. <sup>3</sup> The Norinchukin Bank, agricultural co-operatives, fishery co-operatives. <sup>4</sup> As at end-March 1990.

### **B.2** Cash dispensers, ATMs and EFT POS terminals

### at end-1990

	Cash di	spensers a		EFT POS			
of	Number of cash dispensers	Number of ATMs	Total number of cash dispensers and ATMs	Number of inhabitants per cash dispenser and ATM	of	Number of EFT POS terminals	Number of inhabitants per EFT POS terminal
752	26,355	61,980	88,335	1,399	143	10,170	12,152

<sup>1</sup> As at end-March 1990. <sup>2</sup> Of these 75 networks operated by financial institutions, 9 are nationwide proprietary networks, 65 are local joint networks and one is a nationwide joint network. Also, there are other numerous networks operated by non-banks, e.g. securities companies, finance companies and department stores.

### C. Relative importance of cashless payment instruments in the payment system

at end-1990

Instruments	Volume of transactions <sup>1</sup> (millions)	Volume per capita	Percentage of total volume	Value of transactions <sup>1</sup> USD/JPY (billions)	Value per capita USD/JPY	Percentage of total value
Cheques issued <sup>2</sup>	375.8	3.0	9.9	34,566.9 4,680,355.4	279,667.5 37,866,953.1	71.2
Payments by credit card	830.6	6.7	21.8	70.3	568.8	
Payments by debit card at EFT POS		•	•	9,514.7	76,979.8	0.1
Paper-based <sup>3</sup> credit transfers	554.8	4.5	14.6	356.8	2,886.7	
Paperless credit <sup>4</sup>	001.0	*.0	14.0	48,309.4	390,852.8	0.7
transfers	604.6	4.9	15.9	13,424.6 1,817,687.3	108,613.3 14,706,207.9	27.7
Direct debits <sup>5</sup>	1,437.5	11.6	37.8	122.7 16,616.0	992.7 134,433.7	0.3
TOTAL	3,803.3	30.7	100.0	48,541.3 6,572,482.8	392,729.0 53,175,427.3	100.0

<sup>1</sup> Basically, all figures comprise third-party transactions cleared or settled through interbank arrangements, except payments by credit card, which comprise transactions not cleared or settled through interbank arrangements, and cheques issued, which include banks' transactions for their own account. <sup>2</sup> Transactions cleared through Bill and Cheque Clearing Houses. <sup>3</sup> Comprises document transfers through the "Zengin System" (domestic funds transfer system) and the Post Office. <sup>4</sup> Transactions through the "Zengin System", excluding document transfers. <sup>5</sup> Rough estimates of direct debits for five major public utility charges (electricity, gas, water, telephone and television).

. Territorial area: 41,570 sq.kms.

. Population: 15.0 million

. Gross national product in 1990: (USD/NLG) 299.6/506.3 billion

. Per capita GNP: (USD/NLG) 19,959/33,731

. Exchange rate: (NLG per USD) end-1990: 1.69

### A.1 Monetary aggregates

at end-1990

Items	Absolute USD/NLG (billions)	Per capita USD/NLG Of GNP		Number of accounts (millions)	Number of accounts per inhabitant	
Total money supply	248.5 419.9	16,55427,977	82.9	•	•	
Currency	$\begin{array}{c} 21.5 \\ 36.4 \end{array}$	1,435 2,425	7.2	•	•	
Transferable deposits	52.8 89.2	3,517 5,943	17.6	16.01	1.07	

### A.2 Transferable deposits and number of accounts per category of institution at end-1990

Categories of institution	Number of accounts (millions)	Share of market (%)	Value of accounts USD/NLG (billions)	Value of accounts per capita USD/NLG	Share of market (%)
Commercial banks	4.18	26.1	$\begin{array}{c} 25.2\\ 42.7\end{array}$	1,682 2,843	47.8
Savings banks	1.64	10.2	$1.9\\3.2$	127 215	3.6
Co-operative banks	4.55	28.4	13.5 22.8	898 1,518	25.5
Post bank	5.65	35.3	$\begin{array}{c} 12.1\\ 20.5\end{array}$	809 1,368	23.0
TOTAL	16.01	100.0	52.8 89.2	3,517 5,943	100.0

All figures are estimates.

Categories of institution	Number of institutions	Number of branches	Number of inhabitants per branch	
Commercial banks	97	2,275	6,598	
Savings banks	54	1,027	14,615	
Co-operative banks	1	2,144	7,001	
Postbank*	1	2,715	5,529	
TOTAL	153	8,161	1,839	
Central bank	1	12	•	

## **B.1 Institutional framework**

at end-1990

\* Most of the Postbank branches are at post offices.

### B.2 Cash dispensers, ATMs and EFT POS terminals at end-1990

	Cash di	spensers a		EFT POS			
of	Number of cash dispensers	Number of ATMs	anah	per cash dispenser	of	Number of EFT POS terminals	Number of inhabitants per EFT POS terminal
2	2,700	•	2,700	5,559	2	2,223	6,752

# C. Relative importance of cashless payment instruments in the payment system\*

Instruments	Volume of transactions (millions)	Volume per capita	Percentage of total volume	Value of transactions USD/NLG (billions)	Value per capita USD/NLG	Percentage of total value
Cheques issued	260.0	17	15.2	20.7 35.0	1,380 2,332	0.2
Payments by credit card			<0.5	•	•	<0.5
Payments by debit card at EFT POS	27.0	2	1.6	0.8 1.3	51 87	0.0
Paper-based credit transfers	625.0	42	36.7	399.4 675.0	26,609 44,970	3.6
Paperless credit transfers, of which:						
- large-value transfers	2.2	0	0.1	9,106.5 15,390.0	606,696 1,025,316	82.8
• others	431.0	29	25.3	1,257.4 2,125.0	83,771 141,572	11.4
Direct debits	360.0	24	21.1	210.1 355.0	13,995 23,651	1.9
TOTAL	1,705.2	114	100.0	10,994.8 18,581.2	732,498 1,237,921	100.0

1990

\* All figures with the exception of the large-value transfers are primarily based on real figures, which comprise estimates.

.

. Territorial area: 411.6 thousand sq.kms.

. Population: 8.6 million

. Gross national product in 1990: (USD/SEK) 235.2/1,340.2 billion

. Per capita GNP: (USD/SEK) 27,381/156,019

. Exchange rate: (SEK per USD) 1990 average: 5.9189; end-1990: 5.6980

### A.1 Monetary aggregates

at end-1990

Items	Absolute USD/SEK (billions)	Per capita USD/SEK	Percentage of GNP	Number of accounts (millions)	Number of accounts per inhabitant
Total money supply	111.9 637.6	13,026 74,220	47.6	v	•
Currency	10.8 61.7	1,257 7,182	4.6	•	
Transferable deposits	101.1 575.9	11,769 67,038	43.0	29.2	3.4

# A.2 Transferable deposits and number of accounts per category of institution

at end-1990

Categories of institution	Number of accounts (millions)	Share of market (%)	Value of accounts USD/SEK (billions)	Value of accounts per capita USD/SEK	Share of market (%)
Commercial banks	13.4	45.9	56.5 322.1	6,577 37,494	55.9
Savings banks	11.7	40.0	30.0 170.6	3,492 19,859	29.6
Co-operative and rural banks	2.5	8.6	9.4 53.5	1,094 6,228	9.3
Post Office	1.6	5.5	5.2 29.7	606 3,457	5.2
TOTAL	29.2	100.0	101.1 575.9	11,769 67,038	100.0

at em 1350								
Categories of institution	Number of institutions	Number of branches	Number of inhabitants per branch					
Commercial banks	21	1,359	6,321					
Savings banks	104	1,185	7,249					
Co-operative and rural banks	12	658	13,055					
Sub-total	137	3,202	2,682					
Post Office	1	1,934	4,441					
TOTAL	138	5,136	1,672					
Central bank	1	21						

## **B.1 Institutional framework**

at end-1990

# B.2 Cash dispensers, ATMs and EFT POS terminals at end-1990

	Cash di	spensers a	EFT POS				
of	Number of cash dispensers	Number of ATMs	Total number of cash dispensers and ATMs	per cash dispenser	of	Number of EFT POS terminals	Number of inhabitants per EFT POS terminal
21	1,992	•	1,992	4,313	9	6,0902	1,411

<sup>1</sup> Bancomat and Minuten. <sup>2</sup> BABS and SERVO.

# C. Relative importance of cashless payment instruments in the payment system

Instruments	Volume of transactions (millions)	Volume per capita	Percentage of total volume	Value of transactions USD/SEK (billions)	Value per capita USD/SEK	Percentage of total value
Cheques issued	120	14	13.8	32 180	3,725 20,953	1.3
Payments by credit card <sup>1</sup>	17	2	1.9	2 12	233 1,397	0.1
Payments by debit card at EFT POS <sup>2</sup>	134	16	15.4	8 46	<b>931</b> 5,355	0.3
Paper-based credit transfers <sup>3</sup>	276	32	31.6	824 4,692	95,919 546,178	34.4
Paperless credit transfers <sup>3</sup>	326	38	37.3	1,530 8,718	178,102 1,014,830	63.9
Direct debits	•	•	•	•	Þ	
TOTAL	873	102	100.0	2,396 13,648	278,910 1,588,713	100.0

1990

The figures for cheques and cards are estimated.

<sup>1</sup> Including transactions by holders of travel and entertainment cards. <sup>2</sup> Including paper-based payments made by debit cards. Cards issued by oil companies are included. <sup>3</sup> Postal giro and bank giro.

. Territorial area: 41,293 sq.kms.

. Population: 6.751 million (estimated)

. Gross national product in 1990: (USD/CHF) 234.9 / 326.1 billion

. Per capita GNP: (USD/CHF) 34,802/48,304

. Exchange rate: (CHF per USD) 1990 average: 1.38798; December 1990: 1.27757

### A.1 Monetary aggregates

at end-1990

Items	Absolute USD/CHF (billions)	Per capita USD/CHF	Percentage of GNP	Number of accounts (millions)	Number of accounts per inhabitant
Total money supply <sup>1</sup>	291.83 372.83	43,228 55,226	114.3	•	•
Currency	$20.62 \\ 26.34$	3,054 3,902	8.1	•	•
Transferable deposits <sup>2</sup>	42.25 53.98	6,259 7,996	16.6	•3	•

<sup>1</sup>M3. <sup>2</sup>Sight deposits. <sup>3</sup>Postal giro account holders: 1.3 million.

A.2 Transferable deposits and number of accounts per category of institution
at end-1990

Categories of institution	Number of accounts (millions)	Share of market (%)	Value of accounts USD/CHF (billions) <sup>1</sup>	Value of accounts per capita USD/CHF	Share of market (%)
Commercial banks <sup>2</sup>	•	•	14.03 17.93	2,079 2,655	33.2
Savings banks <sup>3</sup>	•	•	15.02 19.19	2,225 2,843	35.6
Co-operative and rural banks	•	•	1.40 1.79	208 266	3.3
Post Office	1.3	•	$11.80 \\ 15.07$	$1,747 \\ 2,232$	27.9
TOTAL	•	•	42.25 53.98	6,259 7,996	100.0

<sup>1</sup> Sight deposits. <sup>2</sup> Four big banks. <sup>3</sup> Savings, regional, cantonal and other banks.

at enu-1990								
Categories of institution	Number of institutions	Number of branches	Number of inhabitants per branch					
Commercial banks <sup>1</sup>	4	969	6,967					
Savings banks <sup>2</sup>	451	2,009	3,360					
Co-operative and rural banks	2	1,213	5,566					
Sub-total	457	4,191	1,611					
Post Office	1	3,830	1,762					
TOTAL	458	8,021	842					
Central bank	1	10 <sup>3</sup>	•					

### **B.1** Institutional framework

### at end-1990

<sup>1</sup> Big banks. <sup>2</sup> Savings, regional, cantonal and other banks. <sup>3</sup> Two head offices, 8 branches.

# B.2 Cash dispensers, ATMs and EFT POS terminals

at end-1990

Cash dispensers and ATMs					EFT POS		
of	Number of cash dispensers	Number of ATMs		Number of inhabitants per cash dispenser and ATM	Number of	Number of EFT POS terminals	Number of inhabitants per EFT POS terminal
21	2,262	-	2,2622	2,985	23	2,590	2,606

<sup>1</sup> Bancomat and Postomat system. <sup>2</sup> Only cash dispensers. <sup>3</sup> ec - Direct (Tanken), ec- Direct (EFT POS) and Postomat-Plus.

# C. Relative importance of cashless payment instruments in the payment system

Instruments	Volume of transactions (millions)	Volume per capita	Percentage of total volume	Value of transactions USD/CHF (billions)	Value per capita USD/CHF	Percentage of total value
Cheques issued <sup>1</sup>	40.1	5.9	9.7	99.19 137.68	14,693.0 20,393.6	
Payments by credit card <sup>2</sup>	16.5	2.4	4.0	3.03 4.20	448.2 622.1	
Payments by debit card at EFT POS	9.6	1.4	2.3	0.34 0.47	50.1 69.6	
Paper-based credit transfers	117.7	17.4	28.4			•
Paperless credit transfers <sup>3</sup>	217.8	32.2	52.5	.4		•
Direct debits <sup>5</sup> .	13.2	1.9	3.1		•	•
TOTAL	414.9	61.4	100.0	44,495.2 <sup>6</sup> 61,758.5 <sup>6</sup>	6.6 <sup>7</sup> 9.1 <sup>7</sup>	1 1 1 1 1 1 1 1 1

1990

<sup>1</sup> Eurocheques, bank cheques, Swiss Bankers' travellers' cheques and postal cheques. <sup>2</sup> Rough estimates (American Express, Diners Club, Eurocard and VISA). <sup>3</sup> Swiss Interbank Clearing, data media exchange system of banks (DTA) and PTT (SAD, including Telegiro). <sup>4</sup> Value of transactions via the Swiss Interbank Clearing (SIC) system: (USD/CHF): 22,601/31,370 billion. <sup>5</sup> Excluding payments by debit cards. <sup>6</sup> Total giro transfers including interbank payments. <sup>7</sup> In millions of USD/CHF.

. Territorial area: 244.1 thousand sq.kms.

. Population: 57.4 million

. Gross national product in 1990: (USD/GBP) 990.7/554.6 billion (at market prices, 1990)

. Per capita GNP: (USD/GBP) 17,260/9,662

. Exchange rate: (GBP per USD) 1990 average: 0.5598; end-1990: 0.5183

### A.1 Monetary aggregates

at end-1990

Items	Absolute USD/GBP (billions)	Per capita USD/GBP	Percentage of GNP	Number of accounts (millions)	Number of accounts per inhabitant
Total money supply <sup>1</sup>	492.4 255.2	8,578 4,446	46.0	e e e e e e e e e e e e e e e e e e e	•
Currency	29.5 15.3	514 267	2.8	•	•
Transferable deposits <sup>2</sup> .	462.9 239.9	8,064 4,179	43.2	139.2 <sup>s</sup>	2.4

<sup>1</sup> M2 comprising private sector holdings of notes and coin and sterling retail deposits with UK banks (all non-interestbearing deposits plus "chequable" sight or time deposits regardless of maturity plus other deposits, excluding CDs, of less than £100,000 and with less than one month to maturity) and building societies (transaction accounts and other deposits of less than £100,000 and up to one month to maturity). <sup>2</sup> M2 less currency (notes and coin). <sup>3</sup> Estimate for all private sector sterling accounts with UK banks (including Girobank) and for ordinary share and deposit accounts with UK building societies. Accounts with the National Savings Bank are also included. Some types of account which are not included in M2 are included in this estimate of the number of accounts.

### A.2 Transferable deposits and number of accounts per category of institution at end-1990

Categories of institution	Number of accounts (millions)	Share of market (%)	Value of accounts <sup>1</sup> USD/GBP (billions)	Value of accounts per capita USD/GBP	Share of market (%)
Banks	82.3²	59.1	264.1 136.9	4,601 2,385	56.7
Building societies	41.2 <sup>3</sup>	29.6	198.7 103.0	3,462 1,794	42.7
Post office (NSB) <sup>4</sup>	15.7	11.3	2.9 1.5	50 26	0.6
TOTAL	139.2	100.0	465.7 241.4	8,113 4,205	100.0

<sup>1</sup> Figures for value of accounts with banks and building societies are compatible with M2. National Savings Bank accounts are not included in M2. <sup>2</sup> All private sector sterling accounts with UK banks (including Girobank).<sup>3</sup> Private sector ordinary share and deposit accounts with UK building societies. <sup>4</sup> National Savings Ordinary Accounts only. National Savings Bank facilities are available at post offices on an agency basis.

at end-1990							
Categories of institution	Number of institutions	Number of branches	Number of inhabitants per branch				
Banks <sup>1</sup>	537	14,509	3,956				
Building societies <sup>2</sup>	99	6,051	9,486				
Sub-total	636	20,560	2,792				
Post Office (NSB) <sup>3</sup>	1	20,871	2,750				
TOTAL	637	41,431	1,385				
Central Bank	1	5	•				

**B.1 Institutional framework** 

# at end-1990

<sup>1</sup> Comprises the 537 institutions, other than the Bank of England, which at the end of 1990 were authorised to accept deposits under the Banking Act, 1987. The number of branch offices excludes post offices, at which some Girobank services are provided on an agency basis. <sup>2</sup> In addition to their branch offices, the building societies have a large number of agents (e.g. solicitors, estate agents) where depositors can pay into or withdraw from their accounts. <sup>3</sup> National Savings Bank Ordinary Accounts only. National Savings Bank facilities are available at post offices on an agency basis.

## B.2 Cash dispensers, ATMs and EFT POS terminals

at end-1990

Cash dispensers and ATMs			EFT POS			
Number of networks	Number of cash dispensers and ATMs	Number of inhabitants per cash dispenser and ATM	Number of networks	Number of EFT POS terminals	Number of inhabitants per EFT POS terminal	
31	<b>17,0</b> 00²	3,376	33	110,0004	522	

<sup>1</sup> Excludes networks operating in Northern Ireland. <sup>2</sup> During 1990 an estimated 989 million withdrawals were made from these machines valued at USD77.3 billion (some GBP43.3 billion). <sup>3</sup> Includes only the major schemes in operation in the UK. In-house retailer schemes are excluded. <sup>4</sup> Estimated. Excludes terminals installed by retailers to handle in-house cards on integrated EPOS EFT POS systems.

# C. Relative importance of cashless payment instruments in the payment system

Instruments	Volume of transactions (millions)	Vołume per capita	Percentage of total volume	Value of transactions USD/GBP (billions)	Value per capita USD/GBP	Percentage of total value
Cheques issued <sup>1,2</sup>						
of which:		- 0.1	- 0.1	9,146	159,338	10.0
Town	1	< 0.1	< 0.1	5,120	89,199	19.0
				2,767	48,206	
Other	3,212	56.0	51.0	1,549	26,986	5.7
Payments by				50	871	
credit card <sup>3</sup>	693	12.0	11.0	28	488	0.1
				0		
Payments by debit card	192	3.3	3.0	9 5	157 87	< 0.1
Paper-based	40.5		7.9	1 000	91.000	
credit transfers <sup>2</sup>	496	8.6	7.9	1,209 677	21,063 11,794	2.5
Paperless credit transfers, of which:					,	
- large-value	8	0.1	0.1	33,726	587,561	
transfers <sup>4</sup>				18,880	328,920	70.0
	<b></b>				10 800	
- others <sup>5</sup>	848	14.8	13.5	791 443	$13,780 \\ 7,718$	1.6
				447	7,787	
Direct debits	846	14.7	13.4	250	4,355	0.9
				48,145	838,763	
TOTAL <sup>6</sup>	6,296	109.5	100.0	26,952	469,547	100.0

1990

<sup>1</sup> Excluding an estimated 670 million cheques processed at branch level, i.e. drawn on the branch at which the payee's account is held and not passing through the clearings (value of transactions is not available). An estimated 470 million cheques (personal and business) were used to obtain cash: such cheques may either be included in the cheques processed at branch level (above) or in the cheque clearing statistics included in table C (breakdown not available). The value of these cheques is also not available. <sup>2</sup> Including inter-branch (values are estimated). <sup>3</sup> VISA and Mastercard only. Transactions by holders of approximately 11 million retailer cards and 1.6 million travel and entertainment cards (American Express and Diners Club) are excluded. <sup>4</sup> Via CHAPS. <sup>5</sup> Including standing orders. <sup>6</sup> Excluding government payments in cash from post offices against state benefit vouchers, and postal orders.

. Territorial area: 9.2 million sq.kms.

. Population: 251 million

. Gross national product in 1990: USD 5,465.1 billion

. Per capita GNP: USD 21,773

### A.1 Monetary aggregates

at end-1990

Items	Absolute USD (billions)	Per capita USD	Percentage of GNP	Number of accounts (millions)	Number of accounts per inhabitant
Total money supply (M3) <sup>1,2</sup>					
M1	825.4	3,288	15.1		•
M2	3,327.6	13,257	60.8	•	•
M3	4,111.7	16,381	75.2	•	•
Currency	246.4	982	4.5	•	•
Transferable deposits	589.5	2,349	10.8	1713	0.7

<sup>1</sup> Federal Reserve Statistical Release H.6, Table 1, June 5, 1991. <sup>2</sup> M1: currency + travellers' cheques + demand deposits + other chequable deposits. M2: M1 + overnight Euro-dollars and RPs + money market mutual funds (general purpose and broker dealer only) + money market deposit accounts + savings time deposits. M3: M2 + large time deposits (over USD 100,000) + term RPs and Euro-dollars + money market funds (institutions only). All money supply (M) numbers seasonally adjusted. <sup>3</sup> Estimated. Number of chequing accounts per household at deposit-taking institutions: 1.2; number of households: 94.9 million. Number of consumer transferable deposit accounts at commercial banks: 82 million.

#### Value of Value of Number of Share of Share of Categories of accounts<sup>2</sup> accounts accounts<sup>1</sup> market market institution USD per capita (millions) (%) (%) (billions) USD Commercial banks<sup>3</sup> ... 140 82 501.4 1,998 85 Savings banks, S & Ls, FSBs & MSBs<sup>3</sup> 16 9 65.7 26211

9

100

22.4

589.5

89

2,349

4

100

15

171

Credit unions<sup>4,5</sup> .....

Post Offices

TOTAL .....

# A.2 Transferable deposits and number of accounts per category of institution

at end-1990

<sup>1</sup> Estimated. Break in data series. Includes accounts held by individuals, partnerships and corporations. Number of consumer chequing accounts per household: 1.2; number of households: 94.9 million. Number of consumer transferable demand deposit accounts at commercial banks: 82 million.<sup>2</sup> Demand and other chequable deposits. Federal Reserve Statistical Release H.6, Table 4, July 5, 1991. Numbers not seasonally adjusted. 3 S&Ls: Savings and Loan Associations; FSBs: Federal Savings Banks; MSBs: Mutual Savings Banks. 4 Credit Union National Association, Madison, Wisconsin, <sup>5</sup> Share draft (chequable) accounts only. Total value of all credit union accounts: USD 200.1 billion.

Categories of institution	Number of institutions	Number of branches <sup>1</sup>	Number of inhabitants per branch
Commercial banks <sup>2</sup>	12,658	63,927	3,926
Thrift institutions Savings and loans Savings banks <sup>3</sup>	1,835 1,305	17,800 4,776	14,045 52,554
Credit unions4	16,044	21,200	11,792
Post Offices <sup>5</sup>	28,959	40,067	6,264
Total <sup>6</sup>	31,842	107,703	2,330
Central bank <sup>7</sup>	12	37	•

### **B.1 Institutional framework**

### at end-1990

<sup>1</sup> Total number of offices, including head offices listed in Column 1. <sup>2</sup> 955 multibank holding companies controlled 3,760 banks with 72.7% of commercial bank deposits and 75% of commercial bank assets. <sup>3</sup> Includes 365 Mutuel Savings Banks with 2,905 branches; 838 Federal Savings Banks with 566 branches; and 102 co-operative banks. <sup>4</sup> Credit Union National Association, Madison, Wisconsin. <sup>5</sup> Not a point of entry into the payment system, except for postal money orders. <sup>6</sup> Excludes post offices. <sup>7</sup> Does not include the Board of Governors, 11 offsite cheque processing centres, and two contingency processing sites.

# **B.2** Cash dispensers, ATMs and EFT POS terminals

at end-1990

Cash dispensers and ATMs			EFT POS			
Number of networks	Number of cash dispensers and ATMs	Number of inhabitants per ATM	Number of networks	Number of EFT POS terminals	Number of inhabitants per EFT POS terminal	
90	93,0001	2,700	<b>41</b> <sup>2,3</sup>	60,5002.4	4,149	

<sup>1</sup> Average 5,300 transactions a month: 70% withdrawals, 8% deposits. Most other transactions are balance inquiries. 14% of ATMs are dedicated cash dispensers. <sup>2</sup> 28 shared bank networks; 10 proprietary networks; 3 single bank networks.
 <sup>3</sup> POS News, Faulkner & Gray, Inc. (Chicago, Illinois). <sup>4</sup> Does not include dedicated credit authorisation terminals or retail electronic cash register terminals.

## C. Relative importance of cashless payment instruments in the payment system

Instruments	Volume of transactions (millions)	Volume per capita	Percentage of total volume	Value of transactions USD (billions)	Value per capita USD	Percentage of total value
Cheques <sup>1</sup>	57,067	227,4	82.0	76,722	305,665	15.2
Credit card transactions <sup>2</sup>	10,750	42.8	15.4	477	1,901	0.1
Payments by debit card at POS <sup>3</sup>	188	0.7	0.3	6	24	< 0.001
Paper-based giro payments	•	•	•	•	•	
Large-value paperless credit transfers <sup>4,5</sup>	100	0.4	0.1	421,300	1,678,486	83.7
Other credit transfers by ACH and ATM <sup>6</sup>	996	4.0	1.4	1,430	5,699	0.3
Direct debits <sup>7</sup>	494	2.0	0.7	3,237	12,895	0.6
Total	69,595	277.3	100.0	503,172	2,004,670	100.0

**199**0

<sup>1</sup> Includes 55,260 commercial cheques, travellers cheques (410 million valued at USD 21.8 billion), 850 million money orders (162 million Postal) valued at USD 78.5 billion (USD 16.5 billion Postal), and 547 million government cheques valued at USD 623 billion.<sup>2</sup> The Nilson Report, Issues 500-503 (May, June, July 1991) (Los Angeles, California). Includes all types of credit card transactions; bank card volume: 3.2 billion valued at USD 243.0 (3.1 million payments valued at USD 214 billion; 101 million cash advances valued at USD 29 billion). In addition, bank cards accounted for 101 million debit transactions valued at USD 5.5 billion and 26 million cash withdrawals valued at USD 2.6 billion. Transactions per cardholder for all types of cards: 97.4; for bank cardholder: 41.0. Credit card payment volume and value are included in cheque data. <sup>3</sup> POS News, Faulkner & Gray, Inc. (Chicago). 4 Includes Fedwire volume of 62.6 million valued at USD 199.1 trillion and CHIPS volume of 37.3 million valued at USD 222.2 trillion. Does not include transfers between customers of the same bank. Does not include 1990 securities transfers volume of 10.9 million valued at USD 101.3 trillion. Approximately 20% to 25% of CHIPS volume is domestic. This includes in-country FX trades. About 15% of 1990 SWIFT volume of 332.9 million was confined to the United States. <sup>5</sup> Approximately 40% of the dollar value of Fedwire transfers is for interbank loan transactions, 10% for Euro-dollar transactions and 10% for commercial transactions. Of the dollar value of CHIPS transactions, 55% is for foreign exchange transactions and 28% for Euro-dollar transactions. <sup>6</sup> Includes 940.9 million ACH credit payments (424.5 million commercial; 516.4 million government) valued at USD 1,423.8 billion (USD 989.2 billion commercial; USD 434.6 billion government); 40 million ATM payments valued at USD 2.8 billion; and 15 million money transfer services (Western Union & American Express) valued at USD 3.8 billion. Does not include commercial "on-us" items originated and received by the same bank, a number which is not known with certainty. "On-us" items are thought to increase total ACH volume (debits & credits) to 1.7 billion valued at USD 6 trillion. 7 Includes 490.8 million commercial debits valued at USD 3,184.5 billion and 3.2 million government debits valued at USD 52.2 billion. Does not include commercial "on-us" items processed within the same bank.

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### Methodology and sources used for the compilation of Tables C

### <u>Belgium</u>

The data include estimates for transactions processed outside the interbank clearing procedure (including "on-us" items). These are obtained from a survey carried out by the Belgian Banking Association, the Savings Banks Group and at each public credit institution. Data relating to transactions with payment cards are obtained from a quarterly survey conducted by the central bank (since 1985) at the various companies concerned (PAYSYS). Transactions exchanged in the interbank clearing procedure also include those effected by banks for their own account.

### Canada\_

The estimates of the volume and value of transactions effected by cheque, paperless direct credit and direct debit are based on data generated by the Automated Clearing Settlement System of the Canadian Payments Association. The volume and value of transactions effected by credit card are estimated on the basis of data on the dollar sales and the number of sales vouchers processed for the two bank credit card plans that are collected by The Canadian Bankers' Association. The estimates of the volume and value of EFT POS transactions are taken from the informal annual survey of EFT POS developments carried out by the Bank of Canada. Finally, the volume and value of bill payments initiated at ATMs are estimated on the basis of data on the volume of all types of transaction effected at cash dispensers and ATMs of chartered banks collected by The Canadian Bankers' Association, figures from the semi-annual census of cash dispensers and ATMs conducted by the Canadian Payments Association, and an estimate of the average value of a bill.

### <u>France</u>

The figures combine the data relating to all payment instruments, irrespective of whether they are routed via "official" circuits or not.

The statistical data relating to transactions routed via "official" circuits are obtained from Chambres de Compensation (clearing houses) for paper-based instruments and from Ordinateur de Compensation, Centres Régionaux d'Echange d'Images Chèques and Groupement Cartes Bancaires for paperless instruments.

The figures for the transactions that are not routed via "official" circuits are taken from a statistical survey made by the Bank of France with main credit institutions and La Poste.

Statistical data on cheques include postal cheques, those used to obtain cash and truncated cheques. In 1990, for the first time, the figures include truncated cheques not exchanged through "official" circuits (see Footnote 1).

The transactions relating to payments by credit cards give rise to settlement in the form of a direct debit or, more rarely, a cheque. It is not possible to isolate them and they are not shown in the table.

Payments by debit cards are only routed via "official" circuits. Statistical data are obtained from Groupement Cartes Bancaires for transactions not exchanged through Ordinateur de Compensation.

The figures relating to paper-based credit transfers include Treasury transfers and retail credit transfers submitted to the Bank of France by the credit institutions and La Poste and not exchanged through the clearing houses, and credit transfers of a purely interbank nature. Since 1990 it has been possible to isolate interbank credit transfers (see Footnote 3). Large-value credit transfers are not included in the table.

Paperless credit transfers are bulk operations (mainly wages and pensions).

Statistical data on direct debits include figures for interbank payment orders.

#### Germany

Table C includes only payments made by non-banks, irrespective of whether the issuer of the order is a resident or non-resident.

Interbank payments via the Bundesbank are shown in Footnote 6, broken down between the various procedures used. They also include the banks' transactions for their own account, where these are routed via the Bundesbank. Interbank payments which bypass the Bundesbank and are handled within the banking industry's giro networks are not included.

For statistical reasons the table includes all cheques collected from the bank at which the account is held via the clearing system or used by the account holder to withdraw cash. It therefore also includes cheques made out for the purpose of withdrawing cash over the counter at a bank other than that at which the account is held and hence collected via the clearing system. In addition, the number of cheques collected via the paperless cheque collection (cheque truncation) procedure is shown in brackets. The figure also includes cheques collected on a paperless basis in the former GDR's Einheitliches System der Elektronischen Rechentechnik (ESER - Uniform System of Electronic Accounting) after 1st July 1990 (see Footnote 3).

As regards payments by credit card it should be noted that credit card companies' settlements with retailers (normally credit transfers) and also payment of the monthly totals by card holders to card issuers (by credit transfer, direct debit or cheque) are contained in the corresponding items.

For credit transfers the breakdown between paper-based and paperless credit transfers is determined according to whether the customer submits the order in paperless or paper-based form. The Banks' conversion of customers' paper-based credit transfers into paperless credit transfers is included in Footnote 7.

The figures for paper-based credit transfers also include cash paid in and transferred for crediting to an account held at another branch of the same bank or another bank.

The figures for direct debits include all payments under debit/collection authorisations, which arise out of different underlying transactions (see the relevant section of the Red Book). They thus also include cash withdrawals at cash dispensers and ATMs, where these are effected at a bank other than that at which the account is held. These are collected as direct debits via the clearing system. In addition, the figures also include transactions arising out of eurocheques made out abroad by holders of accounts at German credit institutions and collected by the German clearing agent (Gesellschaft für Zahlungssysteme mbH (GZS) - Payment Systems Company) from the drawee bank by means of a direct debit. Direct debits for collecting the proceeds of truncated cheques are not included; thus doublecounting is avoided.

### <u>Italy</u>

The figures provided in Table C ("Relative importance of cashless payment instruments in the payment system") relate to bank instruments, interbank payments, postal instruments and bank and travel and entertainment (T&E) credit cards.

#### Bank instruments:

- The figures for payment operations effected by bank instruments (bank cheques, bankers' drafts, debit cards used at EFT POS terminals, credit transfers, preauthorised debits) are taken from a sample group of seventy-five banks accounting for approximately 80% of the demand deposits of the entire banking system. Therefore, these statistics do not relate to the entire system but they include, for the banks concerned, the transactions not cleared or settled through interbank arrangements ("on-us" items).
- The item "cheques issued" includes: bank cheques, bankers' drafts, Bank of Italy cashier's cheques; cheques issued to withdraw cash are not included.
- The item"credit transfers" also includes some categories of debit transfers not included in "direct debits". In the statistics for 1990 the criterion adopted to distinguish between paperless and paper-based credit transfers refers to the procedures used by the banks to execute the payment orders, whereas previously it was based on the methods used by the customers in submitting the credit transfers.
- The item "direct debits" includes only preauthorised debits on current accounts. Other debit transfers are comprised in "credit transfers" (for instance, transfers effected in the collection of commercial bills and bank receipts).

### Interbank transfers:

- Large-value (paper-based and paperless) transfers include transfers of a purely interbank nature effected through the clearing and settlement systems. Transfers between the banking system and the Bank of Italy or the Treasury are also included.

### Postal instruments:

- The statistics on postal instruments relate to the entire activity of the postal system in Italy.
- The item "cheques issued" includes postal cheques and postal money orders.
- Inpayments on postal current accounts (generally made in cash or by bankers' draft) are included in "paper-based credit transfers".
- In the statistics for 1990 postal giro payments are considered as "paperless credit transfers" whereas, in the past they were included in "paper-based credit transfers".

### Bank and T&E credit cards

- The item "payments by credit card" comprises payment transactions effected in Italy and abroad by holders of bank and T&E credit cards issued in Italy.

### <u>Japan</u>

Basically, all figures comprise third-party transactions cleared or settled through interbank arrangements, except payments by credit card, which comprise transactions not cleared or settled through interbank arrangements, and cheques issued, which includes banks' transactions for their own account. Sources are indicated in the footnotes.

### <u>Netherlands</u>

In principle, all cashless transactions are included, duly corrected for double-counting. Though most figures are based on available statistics, estimates have sometimes had to be made, for instance with respect to the volume and value of transactions between customers of the same bank.

### Sweden

The volume and value of cheques transactions of one of the largest commercial bank's have been used to estimate issued cheques for the whole banking sector. In Sweden cheques are filed by the receiving bank. The total amount of cheques is calculated and cleared through the Swedish clearing system.

Figures for credit card transactions volume and value have been based on a special study of one credit card company. The figures for the whole market have been extrapolated on the basis of the company's market share.

For debit cards data have been collected from the two card-administrative companies SERVO and BABS. For the petrol companies estimated figures have been used.

Data on paper-based and paperless credit transfers have been collected from the Postal Giro's and the Bank Giro's annual reports.

### Switzerland

The sources are stated in the footnotes.

### United Kingdom

Sources for the statistics included in Table C are documents published by the Association for Payment Clearing Services (APACS) and the British Bankers' Association (BBA). Data in respect of cross-border, foreign exchange and securities transactions are included indistinguishably. Excluded, however, are government payments in cash from post offices against state benefit vouchers as well as postal orders.

### Cheques:

- Split between large-value same-day Town Clearing and the cheques processed through the three-day Cheque Clearing.
- Excludes cheques processed at branch level (a proportion of which will have been used to obtain cash) see Footnote 1.
- Includes some cheques used to obtain cash see Footnote 1.
- Cheques (including eurocheques) written abroad and drawn on UK banks are included in the Cheque Clearing data.
- Includes inter-branch items, i.e. items exchanged between branches of the same bank. The value of inter-branch cheques is estimated.
- Some maturing commercial bills are processed in the Town Clearing and included in the data.
- Travellers' cheques are included in the Cheque Clearing data.

### Credit cards:

- VISA and Mastercard only. Excludes retailer card and travel and entertainment card transactions.
- Includes cash advances.
- Includes data on transactions carried out abroad with UK-issued cards (no breakdown between domestic and cross-border transactions is available).
- Excludes data on foreign-issued cards used in the United Kingdom.

### Debit cards:

- Many debit cards have more than one function; transaction data are for the debit card function only.
- Includes debit card transactions at EFTPOS.

### Paper-based credit transfers:

- Items processed through the three-day Credit Clearing.
- Excludes credits processed at branch level.
- Includes inter-branch items. The value of inter-branch items is estimated.
- Includes transactions involving the payment of cash into accounts.

### Paperless credit transfers:

- Split between large-value (CHAPS) and "others" (standing orders and other credits processed via BACS, and inter-branch electronic credits).
- The value of inter-branch electronic credits is estimated.
- CHAPS data exclude inter-branch items.

### Direct debits:

- Items processed via BACS' Direct Debiting Scheme (debit on the debtor's bank account initiated by the creditor, based on the prior written agreement of the debtor).
- Does not include transactions originating from ATM withdrawals.

### United States

The data are taken directly from sources cited in the footnotes or estimated from data available to the central bank. Total cheque volume, for example, is an estimate based on central bank processing data and its estimated overall market share; total cheque value is based on a 1979 survey that is adjusted for inflation. Some of the data include "on-us" transactions; some do not. Cheque, large-value funds transfers, and credit card data include "on-us" data; credit and debit transfers through the ACH and POS debits do not.