

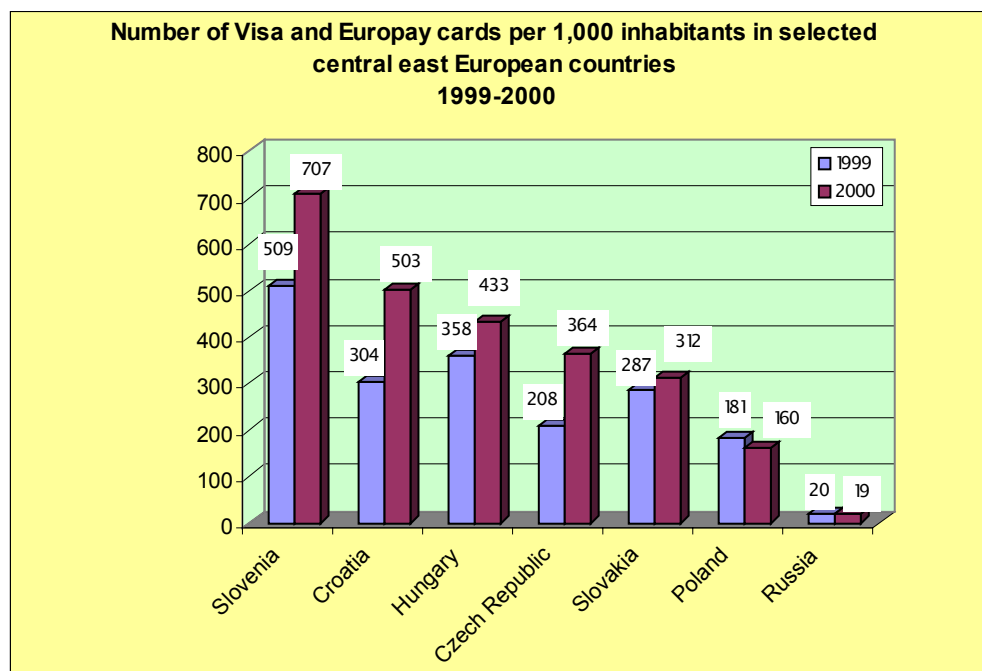
**THE PAYMENT CARD BUSINESS IN HUNGARY**  
**(2000)**

**April 2001**

## A OVERALL ANALYSIS OF THE BANK ISSUED PAYMENT CARD BUSINESS

### 1 Trends in the Number of Cards

Although at different rates, the number of payment cards has been increasing dynamically across the central east European countries that joined the payment card business more or less simultaneously with Hungary at the late 80's and early 90's. The number of cards per 1,000 inhabitants, therefore, is changing year by year. Today, Hungary occupies the third place in the region based on end-2000 data.

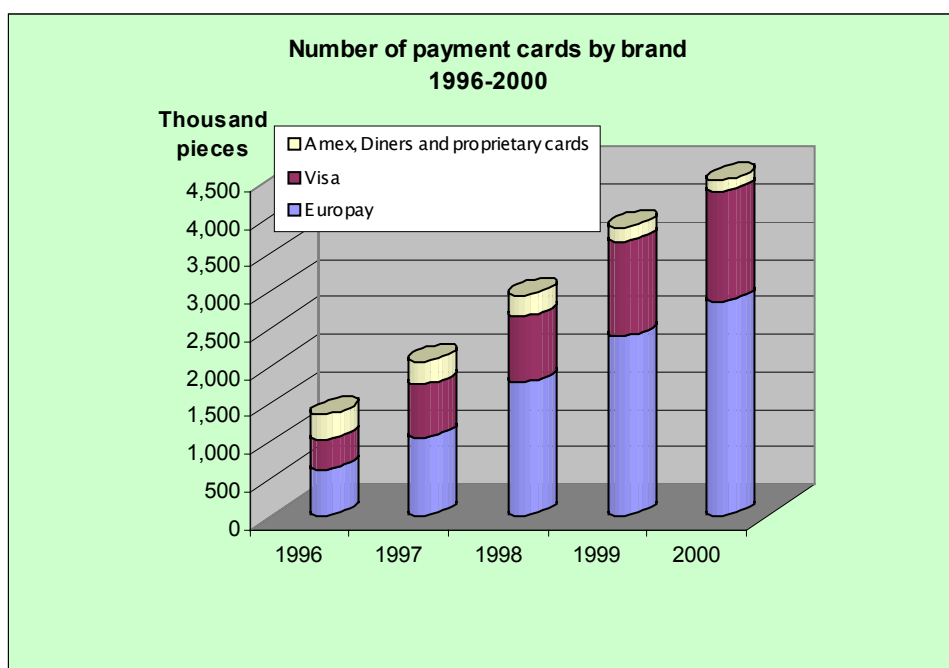


Source: Europay International and Visa International

Slovenia, registering the second fastest growth rate, continues to maintain its leading position. The Czech Republic registered the most spectacular growth last year, with the number of cards increasing by 75%. In Hungary, the number of cards bearing Visa and Europay logos rose by 21% per one thousand persons of its total population. But Poland, with a leading position as regards the number of cards issued, experienced a drop last year in the number of cards per one thousand persons.

One characteristic feature of the Hungarian bank card market is that, although there are 24 financial institutions involved in the industry, the market is heavily concentrated – as regards both the number of cards on issue and their percentage share of payment turnover, 87% of the market is controlled by as few as five personal banks, one of them playing a dominant role since the early days of plastic card business.

The increase year by year in the number of cards issued with the Europay and Visa logos (their share was 97% at the end of 2000) clearly illustrates that these two international brands are fundamental for mutual card acceptance in Hungary. A few thousand Amex and Diners cards are also in use in the market, in addition to a steadily decreasing number of proprietary cards, which can be used exclusively in the ATM and POS networks of their issuing banks. The chart below plots the development in the number of cards on issue during the past five years, showing clear evidence that, although the increase in the number of cards issued remains unbroken, its rate has been moderating as the market is becoming more and more mature.



Typically, as their 94% share demonstrates it, most bank issued payment cards currently in use are debit cards; however, the number of credit and charge cards almost doubled in the course of last year, and reached 6% as a percentage of the total.

The importance of co-branded cards continues to be insignificant, their share hardly reaching 1% as a proportion of the whole market; however, their number tripled to nearly 38,000 within the space of one year. This spectacular rise is likely to have been closely linked with two financial institutions that commenced their activity in the Hungarian payment card market last year, specialising exclusively in the issue of these cards.

The first cards containing a computer chip for identification in addition to the magnetic stripe, appeared as co-branded cards. At the moment, however, the chips are used only for scoring points and membership registration.

The number of corporate plastic cards, also known as business cards, held to cover entertainment costs and other official expenditure, rose by a half relative to the end of the previous year, to reach 74,000. Nevertheless, their percentage share remains less than 2% of the total.

Introduced at the end of last year, the so-called virtual card<sup>1</sup> is a novel payment medium. The number of virtual cards is estimated at a few hundred at the moment, and their purpose is to settle payments for purchases on the Internet in a secure way.

The percentage share of bank issued payment cards that can be used both in Hungary and abroad increased further and reached 93% of the total. The rest of cards can be used only for cash withdrawals and/or retail payments.

Around 97% of cards can be used for both cash withdrawals and retail payments. More than two-thirds of the rest (3%) can be used only for cash withdrawals, one-third being available only for retail payments. Typically, these latter two categories are comprised of cards without an international brand.

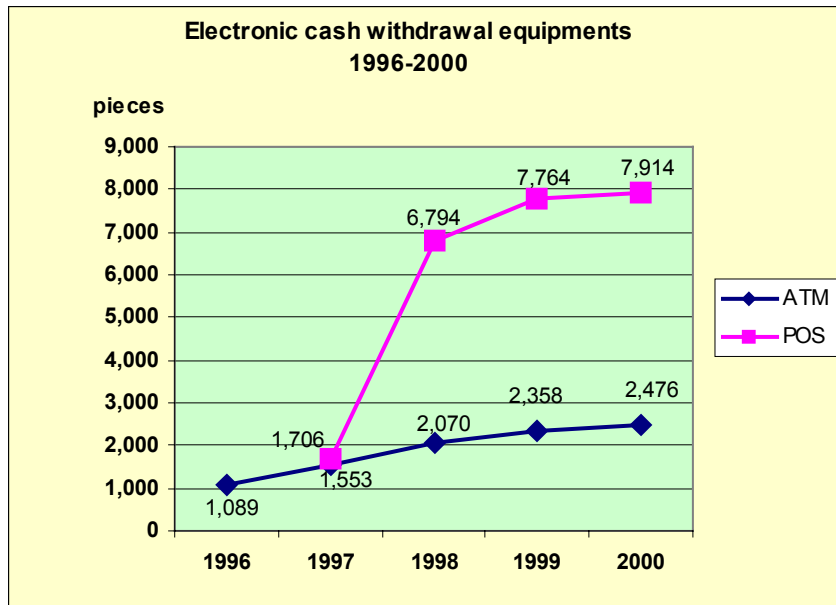
## **2 Cash Withdrawal Facilities and Merchant Acceptance Points**

### **2.1 Cash Withdrawal Facilities**

The existing opportunities for cardholders to withdraw cash are growing year by year. Currently, there are 2,476 ATMs, 3,600 POS terminals installed at bank branches and 4,314 electronic terminals operating at post offices across the country. The next chart presents developments in the number of these devices over the past five years. It provides clear evidence that the number of both ATMs and POS terminals rose relatively slightly last year, the former by 5% and the latter by 2%. POS devices are installed throughout the whole network of the Hungarian Post, so any major change in this regard is unlikely to occur in the foreseeable future. With respect to ATMs, banks have already extended their services to locations vital in terms of expected transaction volumes. POS devices have been installed at locations where an automated teller machine cannot be operated profitably.

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<sup>1</sup> A virtual card is in fact an account which is generally not linked with a card and is used exclusively to pay for goods or services ordered via the Internet or, in some cases, by mail or telephone. Most virtual cards are, therefore, software-based, but a few banks issue genuine plastic cards with a card number to their customers as well, which they are authorised to use exclusively for retail payments. There are examples for both in Hungary.

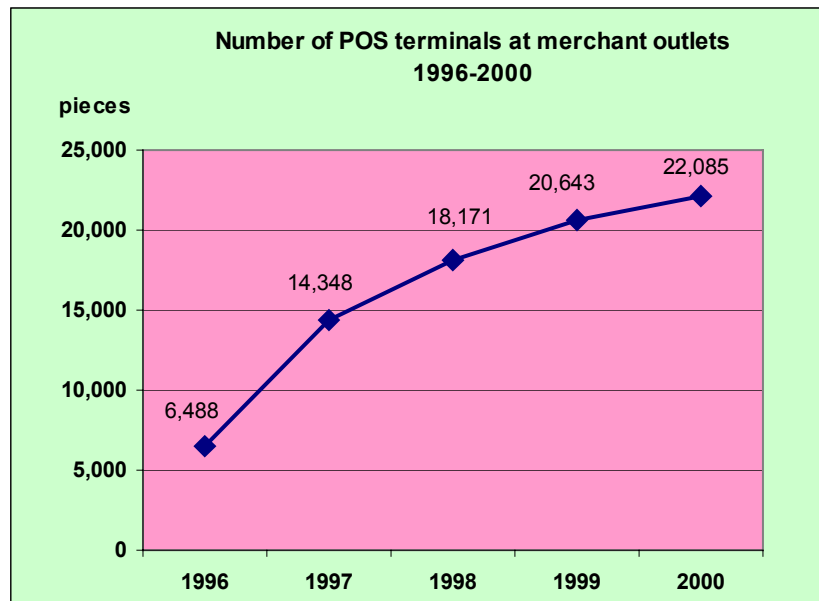


As regards the utilisation rates of the individual categories of device, last year the average number of transactions realized on ATM was 2,500 per month. Cardholders engaged in 60 transactions on average on POS devices installed at bank branches and in 69 transactions on average on POS devices installed at the offices of the Hungarian Post.

## 2.2 Merchant Acceptance Points

The development in the number of merchant acceptance points clearly illustrates acquirer banks' aim to pinpoint those contracts that are not backed by turnover and to discover signs of a merchant collaborating in card fraud. As a result of these efforts, the number of shops where customers may pay with payment card fell from 23,292 to 22,500 in one year. By contrast, the number of cash desks installed with POS terminals rose by 7% in 2000 relative to the previous year, to a current total 22,085. The 10,647 imprinters are either used in shops with very low sales values or are kept in reserve, in addition to operating electronic devices. The share of these fell by 9% in one year.

The following chart plots the development in the past five years in the number of POS terminals installed at merchant acceptance points.



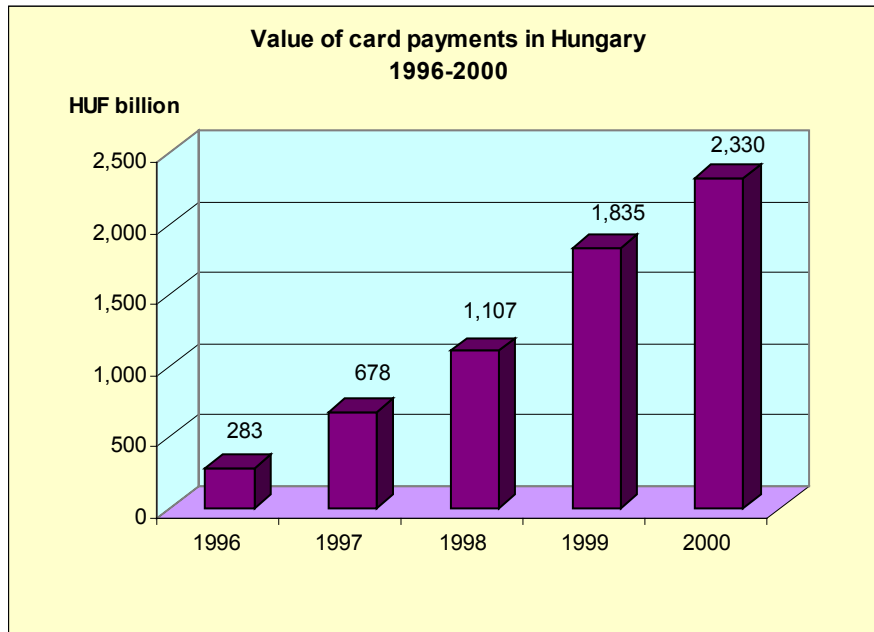
The number of acceptance points in a breakdown by brand is as follows: payment can be made in 15,469 and 15,534 shops respectively with Europay and Visa cards, Diners cards accepted in 4,715 shops, American Express cards in 7,164 shops and JCBs in 6,513 shops.

### 3 Payment Turnover

#### 3.1 Payments in Hungary

The total value of cash withdrawals and purchases in Hungary (including the use of cards issued abroad) amounted to HUF 2,329 billion in 2000, showing an increase of 27% relative to 1999. Electronic acceptance using ATMs and POS terminals, at 99.7%, was predominant. ATMs accounted for 67% of cash withdrawals amounting to a total HUF 2,107 billion, the rest being settled through POS terminals installed at bank branches and post offices. Electronic card use dominates retail payments, too, POS devices making up 99% of the total HUF 107 billion turnover. The remaining 1 per cent of turnover is accounted for by imprinters.

The next chart plots the value of domestic cash withdrawals and purchases in the past five years.

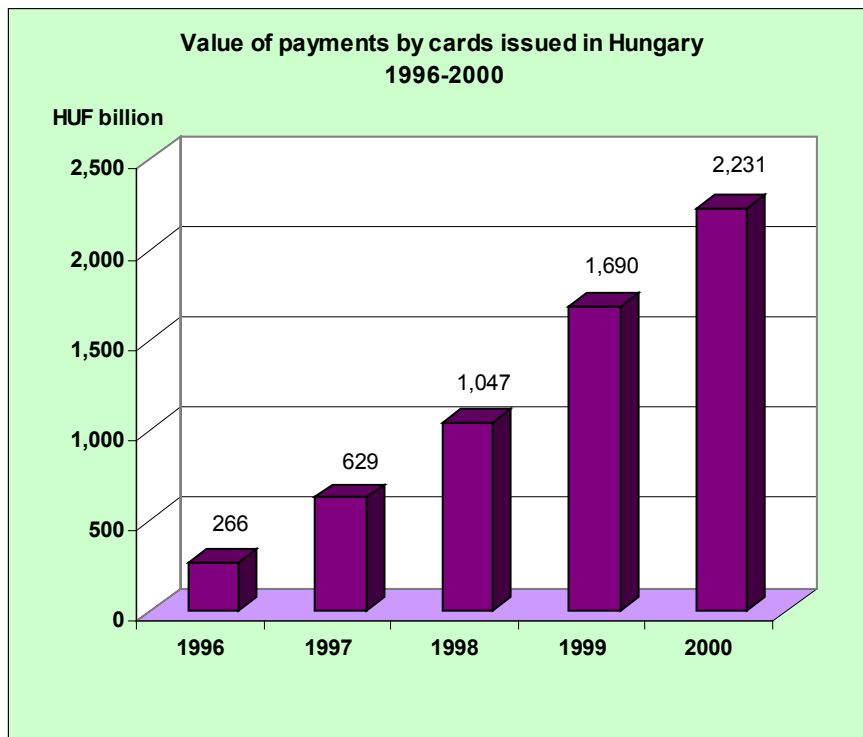


The overwhelming majority, namely 94% of all domestic card payments was made by domestically issued cards in 2000. Cardholders engaged in two transactions on average monthly, the average value of one transaction being HUF 21,417. The number of cash withdrawals was 81 out of every 100. The rest of transactions involved payments for goods or services.

In 2000, foreign visitors in Hungary made 4.8 million transactions with their cards, in a total value of HUF 146 billion. Approximately 56% of the value was accounted for by cash withdrawals, the remaining 46% being shared by payments for goods or services. As regards the number of transactions, there were 45 cash withdrawals out of 100. So the differences in card usage by resident and non-resident cardholders still remain; however, it should be added that Hungarians shop with their cards more often abroad (the number of cash withdrawals is only 30 out of 100) than at home. Foreign cardholders withdrew cash from ATMs on 98 occasions out of 100, so the use of POS terminals installed at bank branches and post offices was a rare occurrence, given that generally a similar transaction is very costly abroad.

### **3.2 Payments with Cards Issued in Hungary**

The total value of payments using cards issued by Hungarian banks was HUF 2,231 billion in 2000. Some 98% of this value was effected in Hungary. That meant a 32% increase relative to the previous year. The rise in the number of transactions, at 19%, was much more modest, totalling 103.5 million. The frequency of card use did not change, the average number of transactions remaining two per months. The average value per one transaction was HUF 21,547, representing an only 1 per cent increase (excluding the inflation) relative to 1999. The next chart plots the development in the past five year in the total value of turnover conducted with domestically issued cards.



Hungarian cardholders withdrew foreign currency or paid for goods and services to the tune of HUF 47 billion during their stay abroad. They used their cards only on 30 occasions out of 100 to withdraw cash, which costs money abroad just as in Hungary. Generally, purchases are free of any additional charge, that is, no fee is charged to cardholders.

#### **4 Payment Card Fraud**

The results of endeavours by banks to contain the size of financial losses incurred due to fraudulent activity have been more and more evident recently. Most of them employ task forces specialising in this particular area. They have put monitoring systems in place to discover suspect transactions and immediately block cards reported by cardholders as lost or stolen. It has been a very important and encouraging event that, despite strong competition, cooperation among banks in this field has developed and is working well in institutionalised form under the name of Fraud Forum.

There is another important change that affects the size of fraudulent activity<sup>2</sup> and write offs<sup>3</sup> incurred by the issuing business, the distribution of the various types of fraud as well as the distribution of losses charged to (issuing or

<sup>2</sup> Fraudulent activity is loss incurred due to fraudulent acts committed during the reporting period.

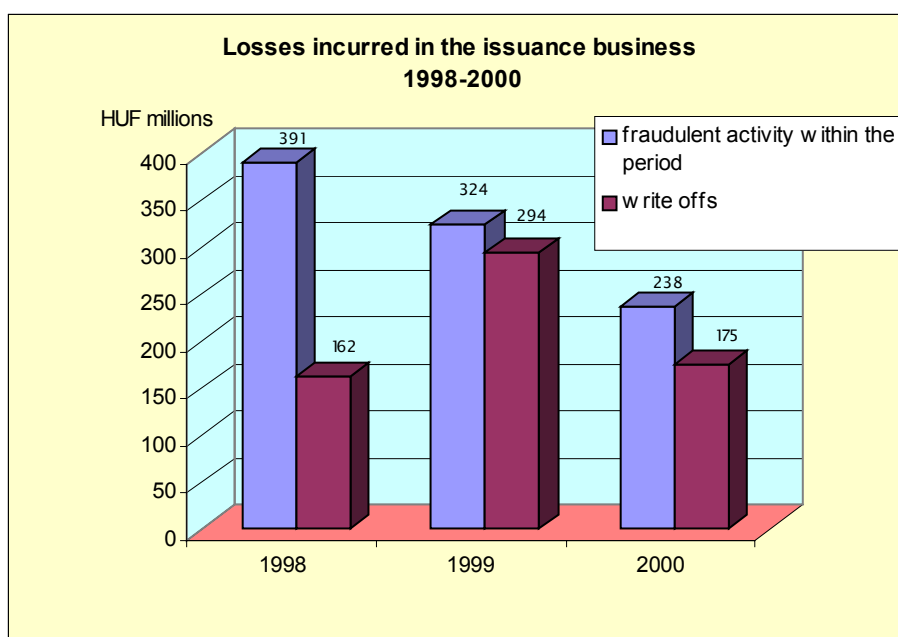
<sup>3</sup> Write offs are damages suffered by the participants of the card business during the reporting period. However, it can arise as fraudulent activity during the period preceding the reporting period as well.



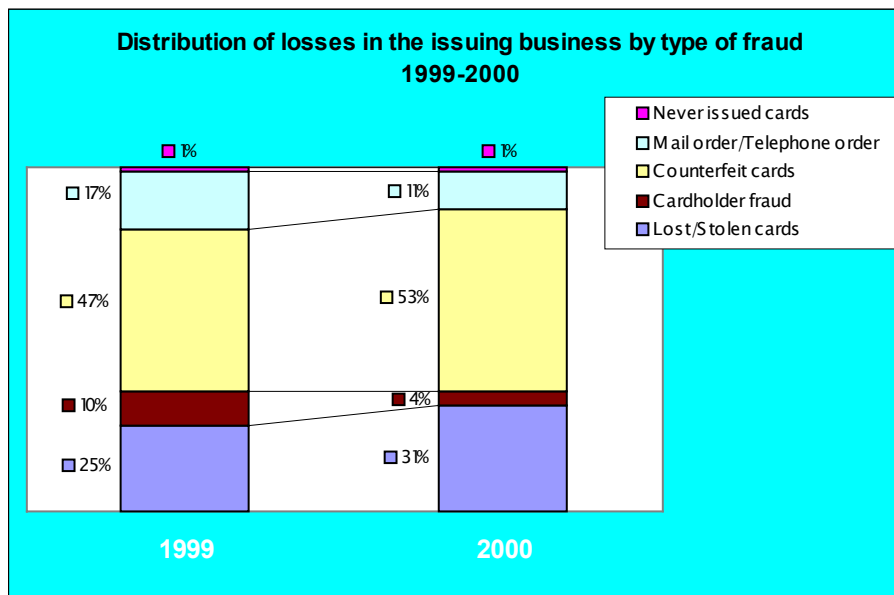
acquiring) banks and cardholders. As regards the category of cardholder fraud, in the previous years the overdrafts were part of it, but today they are not treated as fraud with cards, and therefore they are not included in last year's figures. The reason for this is that, whereas in the past a bank-client relationship definitely started with issuing a card, the situation has changed by now. This treatment conforms to the categorisation applied by the international card associations.

The ratio of last year's losses to total value of payments was 0.01% in 2000, dropping to a half of that recorded in 1999. The declines in the value of fraudulent activity (27%) and losses written off (59%) by one of the participants of the card business were also significant even expressed in absolute terms; however, taking no account of overdrawings definitely played a role here as well. More than half (60%) of losses written off were borne by the issuing banks themselves, nearly one-fifth (18%) was charged to cardholders and the remaining to foreign and domestic acquirer banks.

The next chart plots the result of the past three years.



The following chart shows the distribution of losses incurred per fraud type, also with respect to the past two years. Losses from frauds by category and their ratio to the previous year's results are shown in the next chart.



In comparison with the previous year, the proportion of cardholder fraud halved in 2000. The reason for this was that, unlike the earlier practice, fraudulent overdrawings on cards were eliminated from the records. This change in treatment caused a larger than justified increase in the ratios of the remaining categories of card fraud.

This happened in the case of card counterfeiting, too. But the proportion of write offs originating from transactions realized by counterfeit cards is high even not taking into view the change in treatment. Any perceptible improvement in this category may be expected only after cards with chips are issued.

The same reason explained the slight increase in losses incurred due to fraudulent transactions with stolen or lost cards last year – their number rose exactly to the extent that fraud by cardholders fell. Therefore, banks' concern that there could be a rapid rise in the size of damage caused using cards reported by cardholders as stolen or lost, has not materialised. This fear closely linked with the article of Government Decree 77/1999<sup>4</sup> on the assumption of liability, entered into force on 1 December 1999. It is a positive effect of the Decree that banks have become more cautious in their issuing activity, and they exercise more scrutiny in examining the reliability of their possible clients (banks are less and less inclined to issue a card simultaneously with the opening of the account).

However, the proportion of 'Mail order/Telephone order' type frauds fell, which is perhaps attributable to the fact that a few banks are operating monitoring systems specifically for purchases on the Internet, and check

<sup>4</sup> Article 7 (2) of the Government Decree referred to, according to which 'the holder shall be held liable for losses incurred prior to reporting and the issuer shall be held liable for losses incurred after reporting'

either by phone or via SMS messages whether the transaction was made by the cardholder. In view of the fact that it has been in the market for a short period, it is too early to judge the effect of the introduction of the virtual card on the security of purchases on the Internet.

## **B CARDS ISSUED BY NON-BANKING INSTITUTIONS**

### **1 American Express Cards**

In addition to Amex cards issued by banks, currently there are 5,000 foreign currency based cards in use in Hungary. Last year, the total value of transactions made by cardholders with these cards was HUF 5 billion in Hungary and abroad.

The number of transactions made by Hungarian and foreign holders in Hungary was 197,000 in the course of 2000. Only one-fifth of these were cash withdrawals, the other four-fifth being payments for goods or services. The total value of transactions was HUF 10.6 billion, cash withdrawals accounting for 4%.

### **2 Fuel Cards**

There are 1,304 fuel stations in Hungary, with 1,496 POS terminals and 798 imprinters installed, where customers may pay using 283,000 cards issued with the Agip, Aral, Esso, Mol, OMV, Shell and Total brands. Customers used these cards on 10.3 million occasions last year to purchase motor fuel, in the total amount of HUF 14 billion. The value of payments rose by one half relative to the previous year.

Holders can use their Esso, OMV and Shell cards abroad as well. With 866,000 transactions in 2000, holders spent HUF 12 billion abroad. This amount was 27% higher than in the previous year.

Using the foreign-issued Esso, OMV, Shell and Total cards, drivers fuelled up on 237,000 occasions in one year, in a value of HUF 3.4 billion. That was 17 times the value of payments recorded in 1999. The reason for this salient increase is that, whereas only foreign-issued Esso cards could be used at Hungarian Esso stations earlier, in 2000 OMV, Shell and Total stations also accepted the cards issued abroad and bearing their brand names.

## **III. SUMMARY**

Taken together, with an increase of 16% in 2000, the number of cards on issue continued to grow, although at a moderating pace. The same holds true

for the total value of payments. Here, the increase amounted to 32%. Although the number of credit and charge cards nearly doubled last year relative to 1999, the proportion of debit cards remained 94%.

There was a moderation in the speed with which ATMs were installed. This suggests that locations where these devices can be operated profitably have already been covered, and where they cannot be operated profitably POS terminals, installed at bank branches and post offices, are put in place to ensure safe electronic access to bank accounts.

The number of merchant acceptance points fell slightly last year, because endeavours to improve security and limit fraud losses prompted banks to cooperate. They are trying to pinpoint merchants who are cooperating in frauds, but they are also exercising caution when entering into new contracts.

Partly as a result of the changes noted above and partly due to efforts made to limit fraud, there has been a positive change in the amount of losses from fraud and its proportion of total value of payments. Opposite to credit institutions' worries, the said article of Government Decree 77/1999 on the assumption of liability has a positive impact, as banks are now forced to pay more attention to the prior examination of their possible clients' moral reliability.

Last year saw new products being introduced as well. One example of these is the virtual card, which serves the safe settlement of purchases on the Internet. Two financial institutions entered the market with a card which combines the magnetic stripe with the computer chip, but this latter is used only for scoring points and membership registration.

**Number of Bank Issued Payment Cards**  
31 December 2000

EUROPAY	EC/MC	Standard	491 707
	EC/MC	Gold	9 794
	EC/MC	Silver	23 554
	Cirrus/Maestro		2 120 937
	Cirrus		31 707
	Maestro		169 504
	ec edc		3 076
EUROPAY total			2 850 279
VISA	Classic		187 657
	Business		10 168
	Electron		1 271 146
	Gold		7 601
VISA total			1 476 572
DINERS			3 581
DINERS total			3 581
AMEX			2 847
AMEX total (bank issued only)			2 847
Private label cards	cash only cards		76 116
	cash and purchase cards		8 847
	business cards		27 230
	purchase only cards		22 375
	co-branded cards		547
Total of private label cards			135 115
Grand total			4 468 394

Note: Citicards are included among cards bearing the Cirrus logo.

## Geographical Distribution of ATM Machines and Card-accepting Bank Branches in Hungary

31 December 2000

County/County Seat	County		of which County Seats	
	No. of ATMs	No. of Bank Branches	No. of ATMs	No. of Bank Branches
Budapest			768	269
Baranya County, Pécs	106	113	66	24
Bács-Kiskun County, Kecskemét	104	168	45	25
Békés County, Békéscsaba	72	111	24	16
Borsod-Abaúj-Zemplén County, Miskolc	103	158	52	29
Csongrád County, Szeged	101	111	59	35
Fejér County, Székesfehérvár	97	114	50	20
Gyor-Moson-Sopron County, Gyor	117	149	54	31
Hajdú-Bihar County, Debrecen	103	113	61	30
Heves County, Eger	67	145	27	16
Jász-Nagykun-Szolnok County, Szolnok	78	112	31	15
Komárom County, Tatabánya	65	89	22	14
Nógrád County, Salgótarján	40	67	21	11
Pest County	957	442		
Somogy County, Kaposvár	92	123	34	18
Szabolcs-Szatmár-Bereg County, Nyíregyháza	80	179	39	20
Tolna County, Szekszárd	46	89	17	16
Vas County, Szombathely	83	74	38	20
Veszprém County, Veszprém	82	115	32	21
Zala County, Zalaegerszeg	83	106	27	15
<b>Total</b>	<b>2 476</b>	<b>2 578</b>	<b>1 467</b>	<b>645</b>

**Merchant Acceptance Points and their Distribution by Card Type  
31 December 2000**

	Number of merchant locations	No. of Imprinters	No. of POS Units	No. POS with PIN verification
Number of merchant acceptance points at the end of the reporting period	22 500	10 647	22 085	5 899
Number of points accepting Europay cards	15 469	7 802	17 375	7 974
Number of points accepting Visa cards	15 534	7 802	17 405	5 874
Number of points accepting Diners Club cards	4 715	2 845	4 583	
Number of points accepting Amex cards	7 164	4 844	4 876	
Number of points accepting JCB cards	6 513	6 513	6 375	

## Volume and Value of Bank Issued Card Transactions in Hungary

Q1and Q2 and Q3 and Q4 2000

Card Type	Cash Withdrawal		Purchase		Total	
	Volume	Value	Volume	Value	Volume	Value
	pcs	HUF Million	pcs	HUF Million	pcs	HUF Million
<b>Payment cards issued in Hungary</b>						
EUROPAY	52 122 116	1 332 955	11 438 835	91 773	63 560 951	1 424 728
VISA	27 585 408	581 834	7 803 266	61 708	35 388 674	643 542
DINERS	6 541	395	27 778	585	34 319	980
AMEX *	5 361	111	20 099	430	25 460	541
Private label card	2 819 838	110 350	148 914	3 929	2 968 752	114 279
<b>Total</b>	<b>82 539 264</b>	<b>2 025 645</b>	<b>19 438 892</b>	<b>158 425</b>	<b>101 978 156</b>	<b>2 184 070</b>
<b>Payment cards issued outside Hungary</b>						
EUROPAY	1 529 949	56 138	1 056 023	24 674	2 585 972	80 812
VISA	637 770	23 739	1 433 549	34 387	2 071 319	58 126
DINERS	6 311	503	53 769	2 259	60 080	2 762
AMEX *	6 615	320	97 256	2 744	103 871	3 064
JCB			4 150	173	4 150	173
CITI	16 050	639			16 050	639
<b>Total</b>	<b>2 196 695</b>	<b>81 339</b>	<b>2 644 747</b>	<b>64 237</b>	<b>4 841 442</b>	<b>145 576</b>
<b>Grand Total</b>	<b>84 735 959</b>	<b>2 106 984</b>	<b>22 083 639</b>	<b>222 662</b>	<b>106 819 598</b>	<b>2 329 646</b>

\*Figure includes bank franchise business but excludes the turnover realised by the Amex as non-bank issuer



**Volume and Value of Transactions Outside Hungary by Cards Issued in Hungary**  
Q1 and Q2 and Q3 and Q4 2000

Card Type	Cash Withdrawal		Purchase		Total	
	Volume pcs	Value HUF Million	Volume pcs	Value HUF Million	Volume pcs	Value HUF Million
EUROPAY	253 890	9 333	458 990	11 859	712 880	21 192
VISA	216 686	8 406	608 293	16 195	824 979	24 601
DINERS	199	14	13 574	600	13 773	614
AMEX *	409	5	21 442	801	21 851	806
<b>Total</b>	<b>471 184</b>	<b>17 758</b>	<b>1 102 299</b>	<b>29 455</b>	<b>1 573 483</b>	<b>47 213</b>

\* Figure includes bank franchise business but excludes the turnover realised by the Amex as non-bank issuer

Table 6-a

## Volume and Value of Transactions by Credit, Debit and Charge Cards

Q1 and Q2 and Q3 and Q4 2000

Card Type		Number of Cards Issued pcs	Cash Withdrawal		Purchase		Total	
			Volume pcs	Value HUF Million	Volume pcs	Value HUF Million	Volume pcs	Value HUF Million
EUROPAY	credit	182 057	905 973	18 473	140 792	1 270	1 046 765	19 743
	debit	2 668 222	51 470 033	1 323 815	11 757 033	102 362	63 227 066	1 426 177
<b>EUROPAY total</b>		<b>2 850 279</b>	<b>52 376 006</b>	<b>1 342 288</b>	<b>11 897 825</b>	<b>103 632</b>	<b>64 273 831</b>	<b>1 445 920</b>
VISA	credit	64 922	168 583	2 717	1 040 241	10 650	1 208 824	13 367
	debit	1 411 650	27 633 511	587 523	7 371 318	67 253	35 004 829	654 776
<b>VISA total</b>		<b>1 476 572</b>	<b>27 802 094</b>	<b>590 240</b>	<b>8 411 559</b>	<b>77 903</b>	<b>36 213 653</b>	<b>668 143</b>
DINERS	charge	3 581	6 740	409	41 352	1 185	48 092	1 594
<b>DINERS total</b>		<b>3 581</b>	<b>6 740</b>	<b>409</b>	<b>41 352</b>	<b>1 185</b>	<b>48 092</b>	<b>1 594</b>
AMEX	charge	2 847	5 770	116	41 541	1 231	47 311	1 347
<b>AMEX total</b>		<b>2 847</b>	<b>5 770</b>	<b>116</b>	<b>41 541</b>	<b>1 231</b>	<b>47 311</b>	<b>1 347</b>
Private label cards	credit	22 922	853	37	11 871	640	12 724	677
	debit	112 193	2 818 985	110 313	137 043	3 289	2 956 028	113 602
<b>Total of private label card:</b>		<b>135 115</b>	<b>2 819 838</b>	<b>110 350</b>	<b>148 914</b>	<b>3 929</b>	<b>2 968 752</b>	<b>114 279</b>
<b>Grand total</b>		<b>4 468 394</b>	<b>83 010 448</b>	<b>2 043 403</b>	<b>20 541 191</b>	<b>187 880</b>	<b>103 551 639</b>	<b>2 231 283</b>