

PAYMENT CARD FRAUD IN HUNGARY

(2006)

Payments System and Currency Issue Policy

Analysis structure

The analysis covers the fraudulent activities and losses written off in the card-issuing business and the fraudulent activities and losses written off in the acquiring business separately.

Fraudulent activity means fraudulent acts reported by cardholders or otherwise communicated to banks in the period under review, i.e. in 2006. Such fraudulent acts were investigated by the banks affected during the same year and shown as losses for some participant of the payment card business. In some cases, however, the completion of such investigations is likely to last well into next year.

Loss means the recording of fraud as debt written off by some participant in the card business, i.e. the issuing bank, the cardholder or participating retailers or the banks of such (acquiring bank). Fraud forming the basis of losses occurred in either the period under review or before; however, the investigations were completed in 2006.

Frauds and losses arising in the card issuing business mean any misuse in Hungary and abroad of cards issued by Hungarian banks (this category also includes the frauds and losses incurred in on-us transactions, i.e. those arising in the issuing bank's own network, in transactions conducted with the issuer's cards).

Frauds and losses arising in the card acquiring business mean fraud involving the use of domestically issued cards and foreign-issued cards in Hungary (frauds and losses incurred in the transactions involving the use of the acquiring bank's own cards in its own network, that is on-us transactions, are not covered under this point of the analysis).

Frauds and losses in the card-issuing and the acquiring businesses contain some overlaps, notably the losses incurred in connection with the use in Hungary of cards issued by Hungarian banks, outside the issuer's network, consequently, the figures from the two sectors cannot be combined!

Categories of fraud in the analysis:

Lost cards: various transactions are performed by unauthorised individuals with the card lost by the cardholder.

Stolen cards: unauthorised persons perform transactions with the card stolen from the cardholder.

Cards not received: unauthorised persons use those cards which are sent by post to the cardholder by the issuing bank, but the card is not received by its rightful holder.

Fraudulent application of cards: the client gives false data when applying for a card and receives one with these false data from the bank, and the client uses this card for performing unauthorised transactions.

Counterfeit cards: including all kinds of counterfeiting, e.g. by obtaining and using data on a real card the cheaters prepare a counterfeit card, or they change real cards' personalisation data in order to perform unauthorised transactions.

When ordering through mail/telephone/the Internet, unauthorised persons use the data of real cards, or perform the transaction with data of cards which do not exist. In these transactions the card is not present physically.

Other fraud: all frauds which cannot be classified under any of the above six groups belong here; for example, charging a given transaction more than once to a client by the retailer in bad faith, use of a card by a mala fide client without having sufficient funds on the account.

Introduction

In general, in the domestic bank issued payment card business, the ratio of frauds to the turnover is negligible. As it is shown in the table below, some improvement can be observed in the last five years as well, although it seems to have come to a halt on the acquiring side in the last two years.

Overall rate of fraud in the bank issued payment card business		
year	issuing turnover	acquiring turnover
2002	0,0058%	0,0053%
2003	0,0047%	0,0047%
2004	0,0043%	0,0022%
2005	0,0042%	0,0026%
2006	0,0040%	0,0031%

Table 1

The decline proportionate to the turnover is attributable to those prevention techniques which are successfully applied by the majority of domestic banks, for example, sending an SMS after each transaction, setting up and continuously developing monitoring systems which eliminate transactions where there is a suspicion of fraud.

Although the chip migration aiming at reducing counterfeiting has started in Hungary as well, in the initial stage of migration no close relationship between the developments in frauds committed using counterfeit cards and chip migration has been found. The underlying reason

- on the one hand is that the migration is incomplete not only in Hungary, but within Europe as well, a part of bank cards has only a magnetic strip, and also a significant part of terminals can only read cards with magnetic strip,
- and on the other hand, frauds move to areas and banks geographically not included in the migration.

The most important figures are given below, separately for the issuing business and for the acquiring business.

Frauds and losses written off in the card-issuing business

Frauds in the card issuing business in 2006 amounted to HUF 246 million, representing an increase of 13% and accounting for 0.004% of the overall issuing turnover (same as in the previous year). In terms of the number of fraudulent uses, 2.5 out of every one hundred thousand transactions constituted some kind of card misuse.

- The value of fraud due to the use of counterfeit cards (HUF 126 million) increased significantly, constituting 51% of the total fraud last year.
- Fraud resulting from the use of stolen or lost cards were 10% down compared to the previous year (HUF 88 million). They accounted for 37% of all losses, meaning that it is the second most significant loss category.
- Half of the remaining 12% of the total fraud stems from fraud via mail/telephone/the Internet, while the other half from other frauds, which cannot be classified under the aforementioned categories.

Losses written off in the card-issuing business amount to HUF 250 million (representing an increase of 20% compared to the previous year).

- Issuing banks wrote off 40% of all losses, and they charged 47% on their cardholder clients and 13% on the acquiring banks.
- In spite of the fact that according to the relevant Government Decree, since 1 December 2002 a cardholder is only liable for losses incurred prior to notification up to a limit of HUF 45,000, unless a loss has been incurred as a result of proven wilful misconduct or gross negligence by the holder, the ratio of losses charged to cardholders has increased steadily during the last three years (from 2002 to 2003 there was a 2% decline). A change may be brought by the amendment of the relevant Government Decree valid since 1 March 2007, which includes consumer protection provisions that are stricter than the earlier ones and better guard the interests of cardholder clients.

Frauds and losses written off in the acquiring business

Fraud incurred in the acquiring business show an increase of 42% compared to the previous year (HUF 190 million), accounting for 0.0031% of the overall acquiring turnover (0.0026% in 2005).

- 36% of all fraud was due to the use of counterfeit cards, amounting to HUF 69 million.
- The percentage and the amount of fraud caused by stolen cards was 31% and HUF 59 million, respectively.
- Fraud caused by way of mail, telephone or the Internet increased markedly, to HUF 40 million, representing 21% of all losses.

Total losses amounted to HUF 112 million, 15% of which was covered by the acquiring banks, 24% charged to their contracted retailers and 61% to the issuing banks.

The interrelationship between card counterfeiting and chip migration

As shown in Table 1, issuing and acquiring banks successfully struggle against fraud in Hungary. The transaction monitoring systems and sending of SMS applied by the majority of banks prevent, in all categories of fraud, the first transaction performed by someone who is not the rightful holder of the card to be followed by a second one.¹

It should be mentioned here, that two banks issue EMV chip cards, which provides additional protection against counterfeiting. Its effect was analysed by drawing a parallel between the developments in the fraud resulting from counterfeiting in the whole sector and the developments in the fraud of K&H and OTP, which started the migration. In terms of both the issuing and the acquiring sides we established that in Hungary there is no close relationship between these two factors.

¹ This kind of protection can only be applied in case of electronic transactions subject to authorisation (ATM and POS); when an imprinter is used and there is no authorisation for acceptance, the issuing bank does not receive a simultaneous notification of the transaction, so it cannot inform its cardholder client either.

1. Frauds and losses written off in the card-issuing business

1.1. Fraudulent activity

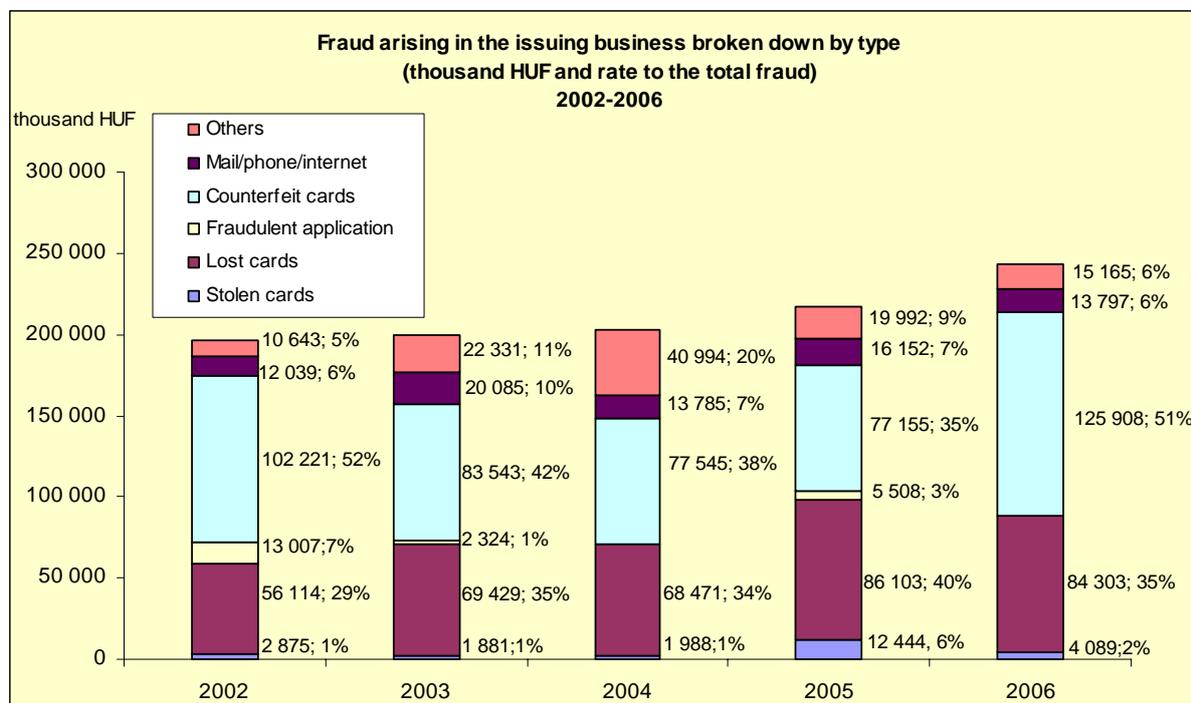
The absolute value of fraud from the use of cards of domestic issue increased by 13% compared to last year, reaching HUF 246 million in 2006. However, the ratio of fraud in the overall issuing turnover (domestic and foreign transactions conducted with domestically issued cards) remained the same, fluctuating around 0.004% for the third consecutive year, as shown in the table in the Introduction.

The amount of fraud per one card also remained unchanged at thirty forints, i.e. each cardholder would suffer this fraud, if the overall amount of fraud were to be distributed evenly among them. The ratio of unauthorised transactions (5,747 ea) declined by 7% compared to the previous year, but their average value (HUF 42,738) increased by 21%.

As for the number of fraudulent uses, 2.5 out of every one hundred thousand transactions constituted some kind of card misuse in 2006, compared to 3 in the previous year.

Of total amount of fraud, 13% arised within the ATM and POS network of the issuing banks (3% less than a year earlier), while the rest within the network of other domestic and foreign banks.

The chart below shows the amounts of fraud broken down by type, indicating their percentages within the total fraud for the past five years:



As the chart indicates, fraud caused by counterfeit cards accounted for more than a half of all fraud in 2006, and the fraud due to the use of stolen cards constituted the other significant item. For five years, the fraud caused by counterfeit cards had shown a declining trend both in terms of value and percentage until last year, but in 2006 their percentage within the total increased from

35% to 51%. Compared to the previous year, in terms of value and volume the increase was 63% and 42%, respectively.

In order to reduce frauds where counterfeit cards are used, international card companies MasterCard and Visa urge on replacing the magnetic strip with chip technology, and they motivate their European member banks to do so by applying the so-called 'liability shift'.² The use of EMV³ chips has been declared mandatory by the SEPA Cards Framework⁴ as well, in accordance with which the majority of domestic banks plans to attain the SEPA⁵ conformity, i.e. issuing cards equipped with EMV chips, during 2008. (However, at some domestic banks there is no business decision yet on the migration.) Although Hungary is not yet a member of the euro area, in addition to the traditional magnetic strip, two banks have already installed EMV chips on some of their cards to make counterfeiting them significantly more difficult; at the end of 2006, 23% of all cards was considered SEPA compliant.

In view of the relatively low percentage of chip cards, for the time being, the following techniques are used by issuers to limit fraud, including the counterfeiting in Hungary:

- so-called monitoring systems are operated to keep an eye on suspicious transactions, and
- following the use of the card, an SMS is sent to the cardholder, who can immediately take the necessary steps to prevent the card from further use, if the transaction has not been performed by him/her.

These techniques are also of prominent importance when a chip card is used in a magnetic strip environment, which can happen not only outside Europe, but within Europe as well in the transition period.⁶

The developments in fraud stemming from counterfeiting, the extent of chip migration in Hungary, and their interrelationship are examined separately as well. The relevant figures are shown in the table below.

Counterfeit fraud and the EMV chip migration					
	2002	2003	2004	2005	2006
Counterfeit fraud/thousand HUF	102 221	83 543	77 545	77 155	125 908
rate of increase/decrease	-16%	-18%	-7%	-1%	63%
fraud rate in the overall issuing turnover	0,0030%	0,0020%	0,0016%	0,0015%	0,0021%
rate of EMV chip cards	no data	3%	5%	18%	23%

Table 2

In Hungary, two banks started to issue EMV chip cards, one at the end of 2002, the other in 2005. Last year, at these banks the increase in losses stemming from counterfeiting was much lower than the average in the sector. However, no relationship in the preceding period was found between the extent of chip migration and the developments in frauds where counterfeit cards

² Liability shift: In the European international turnover, the liability for fraudulent card transactions will pass to the bank that has not made its cards EMV chip compliant, and has not upgraded its ATM and POS terminals to chip capability. In the turnover outside Europe the party which is at fault with regard to the circumstances of the fraud continues to bear the loss.

³ EMV means a standard drawn up and applied by the consortium comprising JCB, MasterCard and Visa (EMVCo), designed to ensure the inter-operability of chip cards, chip terminals, financial messages and related services.

⁴ SEPA Cards Framework means the set of principles and regulations drawn up by the Cards Working Group operating under the European Payments Council, designed to enable, if introduced, European cardholders to effect bank card payments and cash withdrawals in euro in the countries of the SEPA zone with the same ease and under the same conditions as in their own country.

⁵ SEPA: Single Euro Payments Area

⁶ According to the SEPA Cards Framework, the migration in euro area countries will be completed by 2010, which means that an EMV chip will be installed on each bank card issued within the area, and all ATM and POS terminals in these countries will be able to read chip cards.

were used. At the same time, it cannot be measured to what extent the positive change in 2006 is attributable to chip migration and to what extent to the use of other techniques described above.

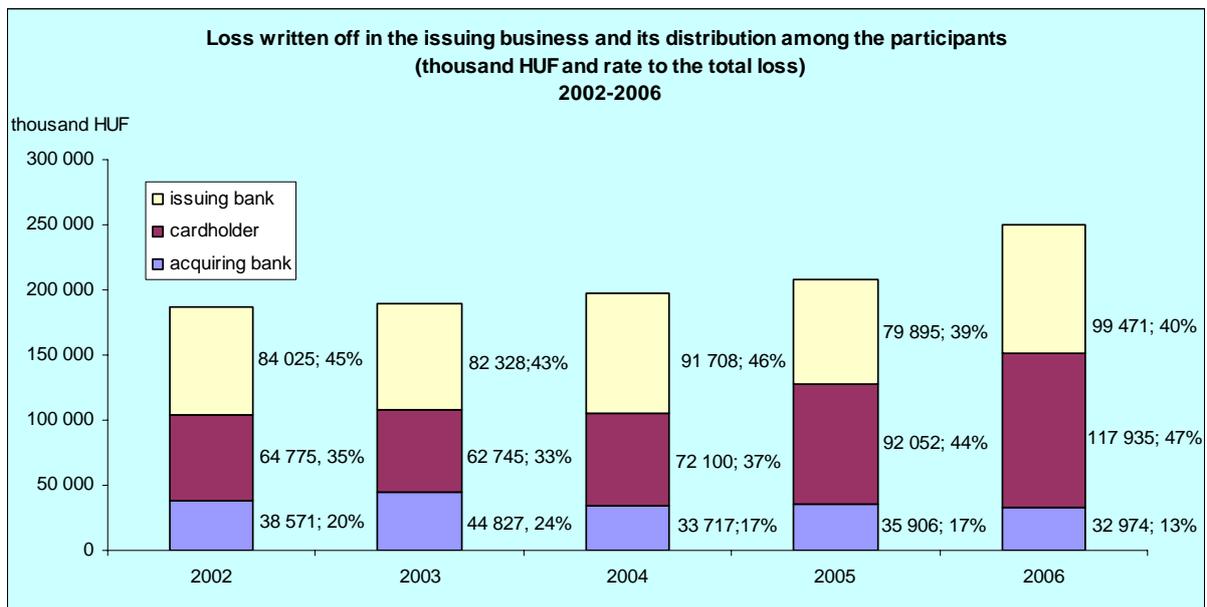
Losses from unauthorised transactions conducted with stolen cards constituted the second most important item in the period under review; together with the frauds involving lost cards they amount to 37% of all losses.

The SEPA Cards Framework mentioned above urges the broader and mandatory use of PIN codes.⁷ It leaves it up to the issuing banks to decide for which cards they will require the mandatory use of PIN for POS⁸ purchases as well (for cash withdrawals at ATMs⁹ use of the PIN is mandatory). Making use of the PIN mandatory substantially reduces the possibility of unauthorised use of stolen or lost cards, provided that clients pay attention to the proper storage of the PIN code (meaning that it is not written on the card or on a note which is kept with the card, and that it is kept secret as prescribed in the card agreement).

The three types of fraud described in detail above account for 88% of the total fraud; half of the remaining part is fraud through mail/telephone/the Internet, while the other half belongs to the 'other' category, unclassifiable under any other ones.

1.2. Losses written off

The losses incurred during the year under review and the previous period increased by 20% in comparison with the previous year, reaching HUF 250 million in 2006.



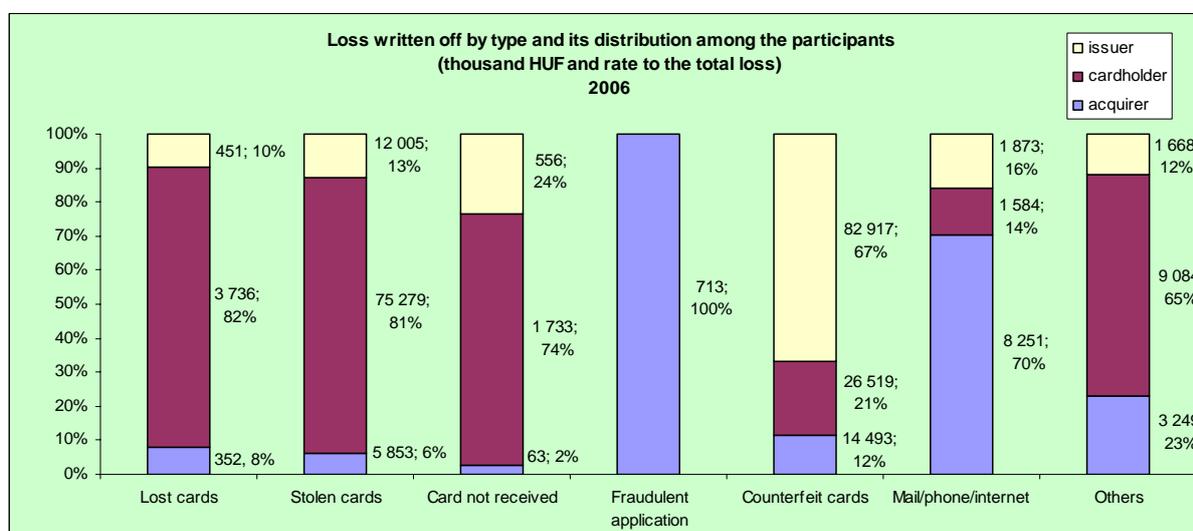
⁷ PIN (Personal Identification Number) means a – generally – four-digit secret code known only by the cardholder, used for the identification of the cardholder at ATMs and POS terminals.

⁸ POS (Point of Sale) means electronic terminals used mostly at the cashier's desks of retailers, enabling cardholders to conduct payment transactions with their cards, where the use of a PIN (or signature) is also required.

⁹ ATM (Automated Teller Machine) means a piece of electronic equipment designed for cash withdrawals, enabling the cardholder to withdraw cash using his/her card and PIN code.

According to the relevant legal regulation, since 1 December 2002 the cardholder is held liable for losses incurred prior to notification¹⁰ up to a limit of HUF 45,000, unless a loss has been incurred as a result of proven wilful misconduct or gross negligence by the holder. Following the notification, the responsibility and the losses are borne by the issuer. In the first year (2003) following an amendment of consumer protection regulations, both in terms of value and share the losses charged to cardholders somewhat declined, but since then both the value and the percentage have increased year by year. A positive change may be brought by the amendment of the relevant Government Decree¹¹ valid since 1 March 2007, which includes consumer protection provisions that are stricter than the earlier ones and better guard the interests of cardholder clients.

The share of loss charged to cardholders varies for the different types of fraud cases. The chart below indicates the amount of losses written off broken down for each type of fraud and the share of bearing these losses among the participants of the card business.



Banks are most inclined to charge losses from frauds with cards that were reported stolen or lost, amounting to 39% (HUF 98 million) of the total, to their cardholder clients. Presumably, the reason for this is that cardholders either neglect to keep a close eye on their cards, and they fail to even notice if it is missing (they notify the bank beyond a period that is considered reasonable), or the thief is able to obtain the PIN as well, the use of which provides reasonable cause, although not conclusive evidence, for the cardholder's negligence. According to the amendment of the aforementioned Government Decree, since 1 March 2007 the issuer cannot charge the loss to the cardholder, if the stolen or lost card was used without its physical presence or electronic identification, provided that the cardholder's breaching of the contract due to wilful misconduct or gross negligence cannot be proven.

Losses from the use of cards not received amount to a mere two million forints, although 74% of them was charged to cardholders by issuers. According to the amendment of the above mentioned Government Decree, since 1 March 2007 the issuer cannot charge the client with the damage or loss occurring during the period when the bank card is on the way to the cardholder.

¹⁰ According to Government Decree 232/2001 on Monetary Circulation, Financial Transaction Services and on Electronic Payment Instruments cardholders are required to report the loss or theft of their card and/or PIN code, or if noticing any unauthorised transaction shown on their bank statements.

¹¹ Government Decree 227/2006 (XI. 20.) on payment services and electronic payment instruments.

In general, a significant part (HUF 124 million, a 50% share) of the losses from the use of counterfeit cards is written off by the banks in their own books. The underlying reason is that in these cases of fraud the cardholder is able to notice any irregularity only:

- upon receipt of the account statement, and finds any unknown transaction,
- upon receipt of an SMS from the bank of a transaction that he/she did not conduct, or
- when a transaction is rejected due to insufficient funds, whereas the cardholder is certain of having enough funds on the account.

The Government Decree also entails a change with regard to bearing the losses from frauds committed through mail/telephone/the Internet. The cardholder, provided that he/she acts in accordance with the contract, cannot be held liable up to the HUF 45,000 limit either, because the card is used without its physical presence. Last year already, only 14% of the total loss of HUF 12 million was charged to the cardholders by the issuers, a significant part of the loss (HUF 8 million, i.e. 70%) was charged to the retailers through the acquiring banks.

The loss from the use of cards received on the basis of fraudulent application was a negligible amount below one million forints, which was completely charged by the issuers to those who accepted the cards.

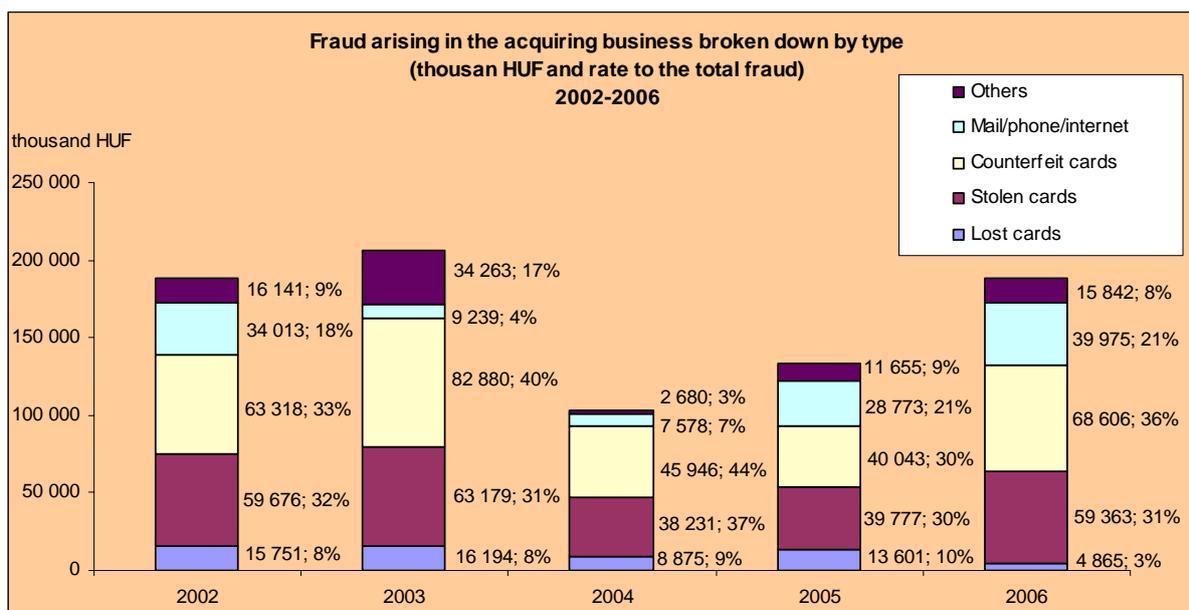
Losses from other types of fraud, which cannot be classified under any of the above categories, amounted to HUF 14 million (the third biggest source of loss); most of it borne by the cardholders.

2. Frauds and losses written off in the card acquiring business

2.1. Fraudulent activity

In comparison with the previous year, the amount of fraud in the acquiring turnover – meaning the transactions conducted in the network of an acquiring bank with cards issued by other domestic and foreign banks – increased by 42%, reaching HUF 190 million. The ratio of the value of the fraud to the overall issuing turnover was 0.0031%, i.e. higher than in the previous year, but still much lower than the percentage share at the beginning of the five-year period under review (Table 1).

The chart below shows the amounts of fraud broken down by type and indicating the percentages within the total fraud in the acquiring business for the past five years:



Note: The 1% missing in 2006 is fraudulent application. Its share in the previous years did not reach one per cent.

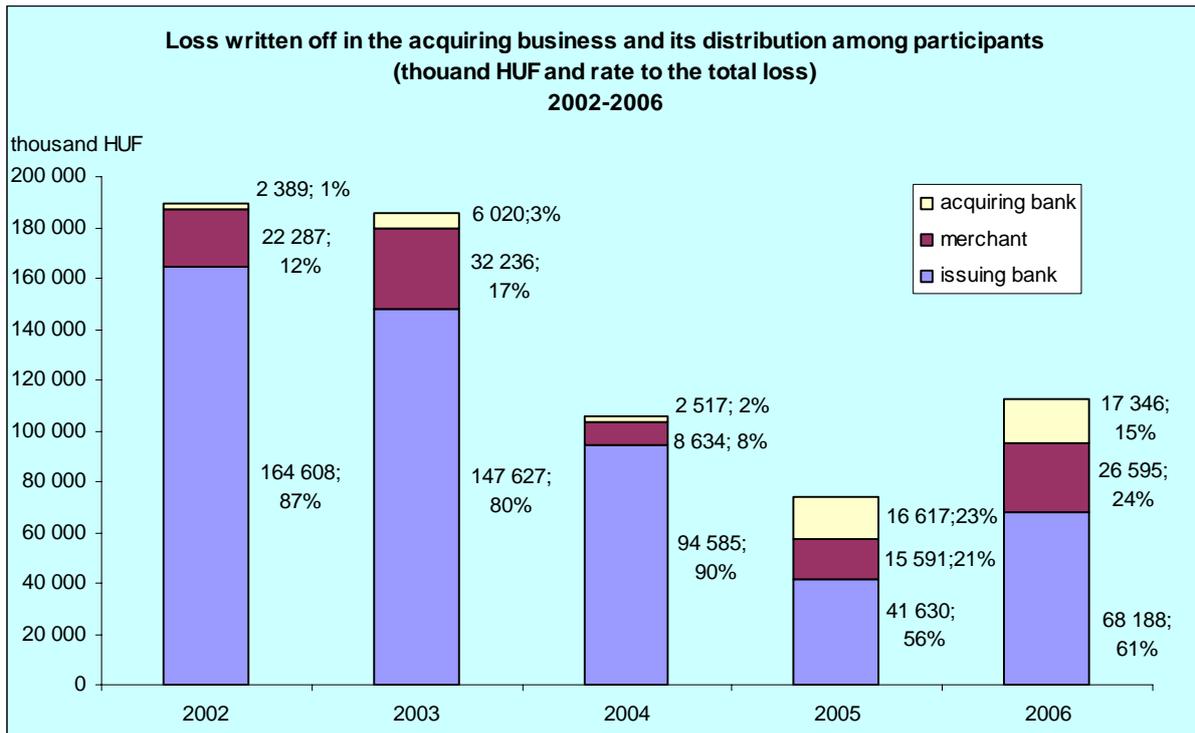
The two types of fraud accounting for the largest shares of the total – as in every year – were the use of counterfeit cards (36%) and stolen cards (31%). The value of fraud from the use of counterfeit cards increased by 71% compared to the previous year, whereas the value of transactions conducted with stolen cards was up 49%. Fraud related to transactions through the third most significant type of fraud, i.e. through mail/telephone/the Internet, also show an increase (40%). These three categories of fraud account for 88% of all frauds committed in the network of domestic acquiring banks. The rest stems from unauthorised transactions with lost cards and from other frauds, which cannot be classified under the aforementioned categories.

Within the framework of the chip migration mentioned under Section 1.1., before the end of 2006 two banks started to convert their POS units installed at retailers into ones capable of reading chip cards. At the end of the year, one third of the nearly 34 thousand units was suitable for accepting EMV chip cards. Although some banks indicated in the fourth quarter that they started the migration of ATM equipment, at the end of 2006 there was no equipment suitable for accepting chip cards yet. With the progress of migration, fraud from the use of counterfeit cards and charging the losses to domestic acquiring banks are expected to decline. However, the result is greatly influenced by the fact that the SEPA and card company regulations regarding chip migration are only valid within the European Union.

2.2. Losses written off

Following an investigation of the circumstances of fraud in the year under review and before, participants in the payment card business wrote off a loss of HUF 112 million last year (one and a half times more than in the previous year).

The chart below demonstrates the share of loss borne by the various participants in terms of value and percentage among all losses.



Although the share and value of losses charged upon issuers increased in 2006 compared to the previous year, they are still lower than in the first three years of the examined five-year period. With the progress of the chip migration process, an increasing share of losses from card counterfeiting within the European Union is compelled to be borne by those acquirers that do not provide for the reading of EMV chip cards on their ATMs and POS terminals, irrespective of whether they are at fault or not with regard to the circumstances of the fraud. This is reflected in the increase in the loss written off by acquiring banks in the last two years.