

THE PAYMENT CARD BUSINESS IN HUNGARY

2007

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Overview

Changes in the number of bank cards in circulation

- The number of bank cards increased at a rate of 4% in 2007, to reach a total of 8.6 million.
- With 0.82 card per person,¹ Hungary is below the EU average and in the middle of the range.
- The MasterCard and Visa brands continue to account for the bulk of domestic mutual card acceptance: 97% of cards bear the brand of one of these two international card companies. Issuance of Diners Club cards was ceased in December 2007, although they had never had an important percentage share.
- In Hungary, a total of 26 financial institutions (and savings cooperatives joining them) were involved in the issuance of bank cards.
- Debit cards have been falling slowly but steadily as a percentage of the total number of cards. In 2007, their share was 79% (down slightly from 80% in the previous year). Currently, the number of debit cards is 6.8 million. The number of credit cards rose by 9% to reach 1.7 million, accounting for one-fifth of cards in circulation. The number of charge cards is a mere 19,000 (Diners Club cards belonged to this category). The MNB has been collecting data on prepaid products since the beginning of 2007. Currently, their number is 15,000.
- There are around 1 million pieces of co-branded and affinity cards in circulation, with a 12% percentage share of the total (down from 13% in 2006).
- At 5%, business cards continue to account for an insignificant share (429,000 pieces); however, the number of cards, registered as consumer products but used for business purposes, has been growing steadily.
- At the end of 2007, 32% of cards were issued with EMV chip (23% a year earlier). Only two banks, K&H and OTP, continue to issue chip cards.

ATM and POS networks

- There are 4,286 ATMs available for electronic cash withdrawal, supplemented by 10,213 POS devices installed in banks and post offices.
- In Hungary, the number of ATMs per one million people is half of the European average of 760 ATMs per person (see footnote 1).
- Currently, 39% of ATMs are able to read EMV chips; 5 banks, namely Allianz, Unicredit, Inter-Európa, Takarékbank and OTP are involved in the migration process.
- In 2007, the number of retail outlets accepting cards bearing the Visa and MasterCard brands increased by 10%: there are now 29,491 shops accepting Visa and MasterCard cards. The number of shops accepting American Express cards is 20,257. JBC cards are accepted in 12,513 shops. In December 2007, Citibank ceased to acquire Diners Club cards; and although Erste Bank began to conclude contracts with merchants, it had only 43 acceptance points at the end of the year.

¹ Data in the 2006 edition of the Blue Book are available for the purposes of comparison, and therefore they reflect the situation in the year preceding the reference year.

- There are 43,370 electronic POS terminals currently in service at merchant outlets, where practically all transactions are subject to authorisation, which contributes to the higher safety of card use.
- Around 80% of POS terminals are capable of accepting EMV chip cards. Six banks, namely Allianz, Unicredit, Inter-Európa, K&H, OTP and Budapest Bank, have begun work to make their terminals capable of reading chips.

Turnover realised with bankcards

Acquiring turnover

- In 2007, 271 million transactions were conducted with cards of domestic and foreign issue in Hungarian banks' ATM and POS networks, in a total value of HUF 6,682 billion. Compared with the previous year, transaction volume rose by 17% and the value of transactions by 10%.
- For the first time in 2007, the percentage share of purchase transactions exceeded that of cash withdrawals: 52 out of every 100 transactions were payment transactions.
- The daily average rate of use of ATMs was 80 transactions; on POS terminals installed at merchant outlets the daily average number of transactions was 8 per terminal.

Issuing turnover

- Hungarian cardholders used their cards at home and abroad on 259 million occasions, in the value of HUF 6,555 billion. Transaction volume rose by 13% and the value of transactions by 10%.
- The frequency of use of domestically issued cards at home and abroad was 2.51 transactions per month. Focusing on domestic non-cash purchase transactions, the frequency was 1.24 transaction per month. The number of monthly cash withdrawals per person was 1.18.
- The average transaction value of purchases (HUF 8,009) dropped by 1% in one year, while the consumer price index rose by 7.98%, suggesting that the rate of use of cards has been increasing in small-value payments.

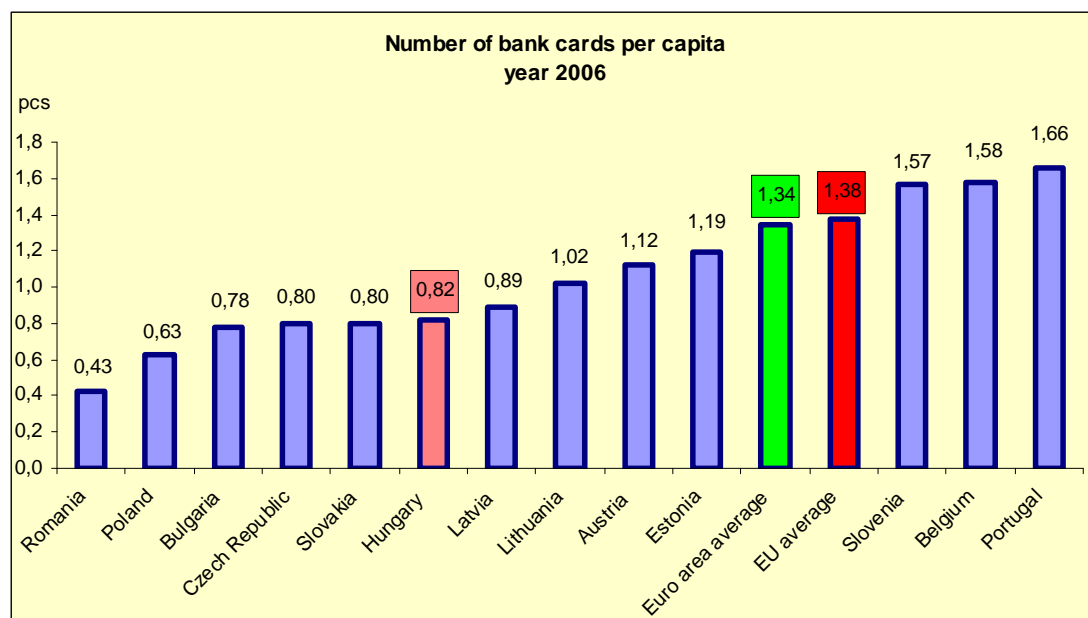
International overview

The charts below analyse developments in a few selected indicators relevant for the bank card business in Hungary, in three Western European countries similar in terms of population and in the new Member States that joined the EU at the same time as or after Hungary:

- The number of bank cards per capita,
- The number of ATMs² per million inhabitants, i.e. the number of terminals for cash withdrawal, and
- The number of POS³ terminals per million inhabitants, i.e. the number of devices for electronic payment.

The charts also include the average indicators for the European Union and the euro area.

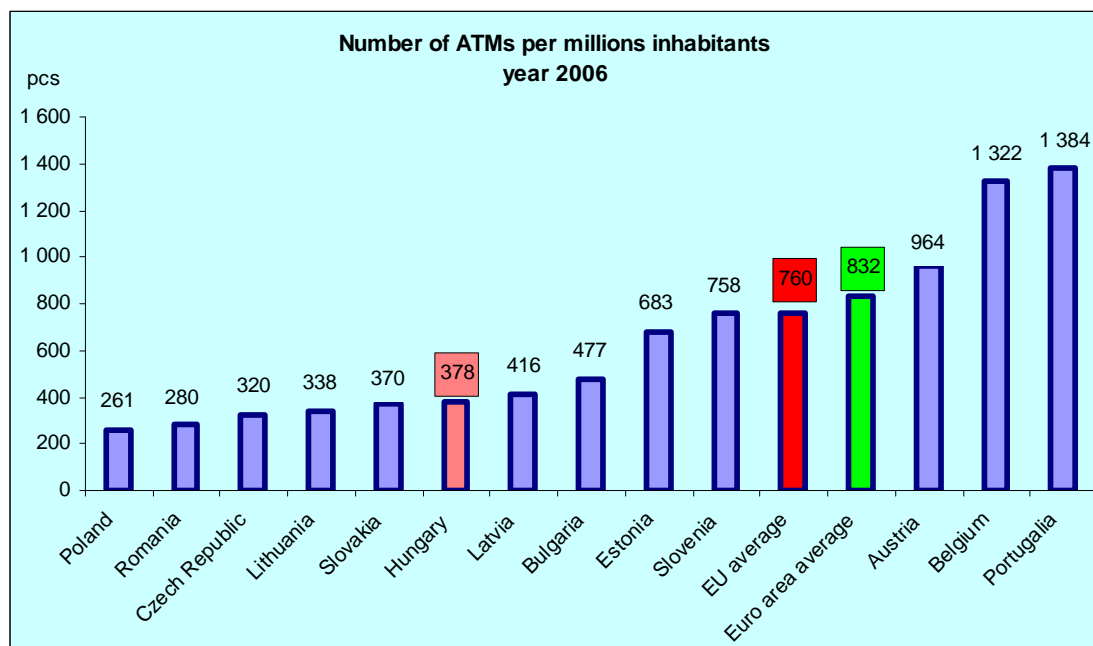
The source of data used in the charts is the latest Blue Book, the European Central Bank's regular statistical publication, containing 2006 data.



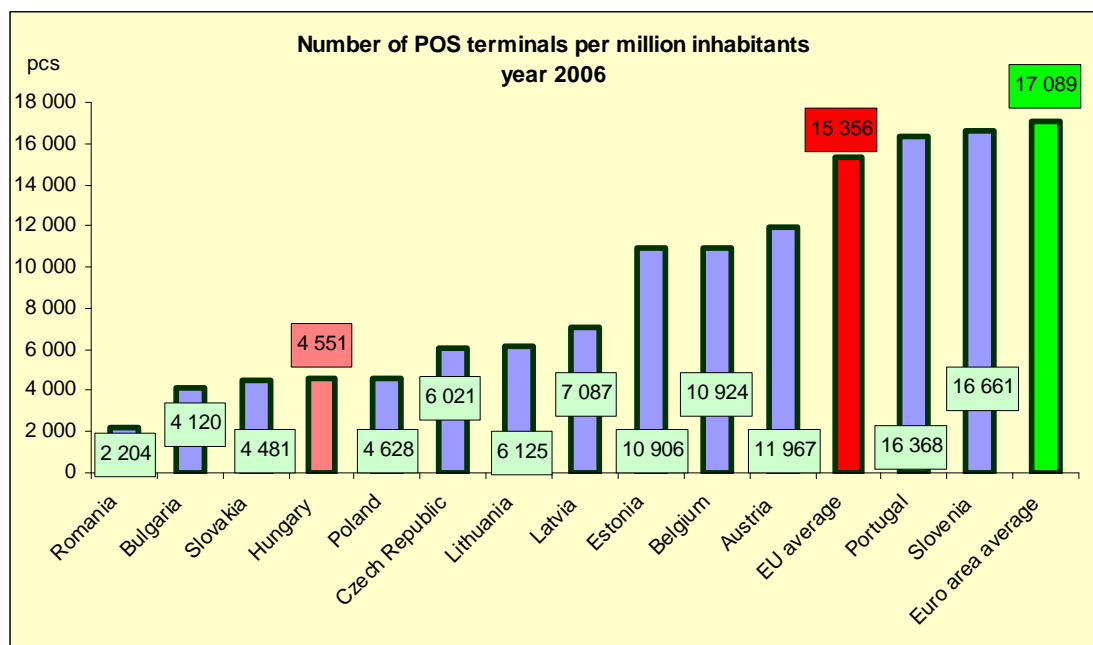
Although the number of bank cards per capita in use increased compared with the previous year (0.73 in 2005), Hungary is still in the middle range of EU and euro area countries, at nearly the same level with the Czech Republic and Slovakia.

² ATM (Automated Teller Machine): a terminal that enables customers holding the appropriate card to make cash withdrawals from or deposits to their bank accounts, or to make other transactions like credit transfers, or to obtain information concerning their account.

³ POS (Point of Sale): a terminal that enables customers to make payments (and to withdraw cash where possible) with the appropriate card at merchant outlets. Transaction information is forwarded either by way of electronic means or on paper, known, respectively, as electronic POS (EFTPOS) or imprinter.



In Hungary, the number of ATMs per million inhabitants is half that of the European Union average, and the gap is even wider compared with the euro area average. Hungary is in the middle range compared with countries that joined the EU at the same time. Hungary's position is improved by the fact that cash withdrawal with electronic identification (PIN code) during opening hours is also ensured at POS terminals installed in banks and post offices.



In terms of POS devices enabling payments with bank cards, Hungary lags behind quite significantly: the number of POS terminals per million inhabitants operating in Hungary is merely 30% of the EU average. This is despite the fact that in the case of Hungary the number of POS terminals installed at bank branches and post offices are also included, although these equipments are only suitable for performing cash withdrawal transactions. The numbers for each country also include the number of imprinters.

I Overall analysis of the bank issued payment card business

1 Characteristics and number of payment cards

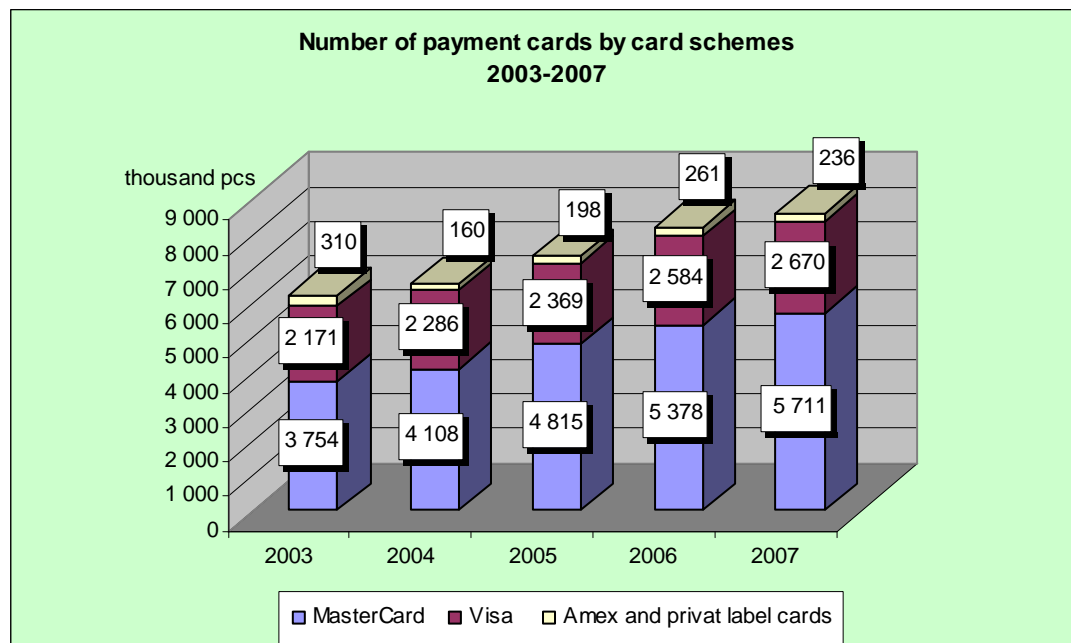
In Hungary, the number of payment cards has been growing steadily although at a varying pace. At the end of 2007 there was a total of 8.6 million cards issued by 26 financial institutions (and the savings cooperatives sponsored by banks) and one financial corporation. Table 1 indicates the figures for the past five years:

	2003	2004	2005	2006	2007
number of cards (thousand pcs)	6 235	6 554	7 382	8 223	8 617
rate of growth	10%	4%	13%	11%	4%
number of cards per capita	0,61	0,65	0,73	0,82	0,86

Table 1 Number of payment cards issued between 2003 and 2007

After a brief drop in 2004, attributed to re-arrangement of profile, the growth rate of the number of bank cards was above 10% for two years. Then, in 2007 their number grew again at a single-digit rate. This was attributable in part to the fact that the issuance of cards under the Diners brand was terminated in 2007, and in part to the fact that issuing banks withdrew part of their privat label cards⁴ (the number of privat label cards fell to 42% of the previous year's level).

Brand composition remained broadly unchanged. Mutual card acceptance is based on the brands of two international card companies: MasterCard and Visa.



⁴ Privat label cards: cards issued without international brand, and accepted only in the ATM and POS networks of the issuing bank

Debit cards⁵ continue to dominate the Hungarian payment card market with a share of 79% (6.447 million cards), with their share remaining broadly unchanged compared with the previous year. The number of cards which are linked to a credit line but function as debit cards (no interest-free period) continued to fall, nearly halving to 108,000, representing only 1.5% of the market. Currently, there are 24 banks involved in issuing debit cards and 8 banks are involved in issuing debit cards linked to a credit line.

Although the number of credit cards,⁶ at 1.703 million, rose by only 9% in one year. They account for one-fifth of cards in circulation. Fifteen banks continue to be involved in issuing this type of card.

The number of charge cards⁷ was less than 19,000. Charge cards are offered by five banks and one financial corporation.

The MNB has been collecting data on prepaid cards issued by banks from 2008. Currently, three banks offer this type of card to customers. Because electronic value is stored by an underlying bank account rather than by the card itself, these cards do not qualify as electronic money. Their number is only 15,000.

The so-called multi-purpose card was introduced in 2006 in Hungary, with a single card able to function as both a debit and a credit card. The number of such cards is less than 60,000.⁸

Certain types of cards are issued in collaboration with merchants (co-branded cards) or non-profit organisations (affinity cards). The percentage share of these products is 12% within the total number of cards, with their number barely increasing compared with the previous year (1.049 million). There are 15 banks involved in issuing co-branded and affinity cards.

Compared with 2006, the number of business cards used to cover business related expenses has increased by a few hundreds (429,000), with their share remaining 5% of the total. The number of issuers is relatively high – 22 banks and one financial corporation.

The traditional business cards is that the bank issues cards linked to the employer's account to cover the employees' expenses in connection with official business. Another

⁵ Debit card: a payment card linked to a bank account, suitable for both cash withdrawals and purchases. The holder of the card may only withdraw cash or spend money up to the amount of his account balance, and the bank account is automatically debited with the amount of each transaction.

⁶ Credit card: a card linked to a credit line fixed earlier in a contract between the cardholder and the bank, which allows the holder to withdraw cash or make purchases up to the amount of the credit line. The credit granted can be settled in full at the end of the month or can be settled in part by the deadline specified in the statement that contains each transaction, with the balance taken as extended credit. If the cardholder opts to pay his debt in full before the specified date, there is no interest charged. For any remaining amount, however, the cardholder has to pay interest for the entire debt or only for the unpaid portion, depending on the bank. Cash withdrawal transactions, however, are not interest free, these are interest bearing from the date of the transaction.

⁷ Charge card: a card that is distinguished from a credit card in that there is no credit line fixed necessarily (but may be) and the total debt should be settled by the end of the month.

⁸ In the statistics compiled by the European Central Bank (with which the Hungarian practice also harmonises), single cards that have a dual function must be reported for both types/functions. This explains the difference in Tables 1 and 5 between the number of cards by function and the number of cards physically existing.

type of product rapidly gaining ground is when the card is linked to the employee's private account to cover his business expenses, which the employer subsequently reimburses based on the receipts of bankcard transactions. For statistical purposes, these cards are treated as personal cards; however, in reality they also function as business cards.

The number of cards introduced specifically for e-purchases featuring higher security functions, also known as virtual cards, increased by 44% to 162,000 by the end of 2007. These cards are used exclusively at Internet merchants to pay for goods or services purchased.

In response to the encouragement of international card companies,⁹ and also in line with the objectives of SEPA,¹⁰ only two of the domestic credit institutions had commenced chip migration allowing the safer use of cards. At the end of 2007, 32% of all cards have EMV¹¹ chips embedded.

2 Cash withdrawal facilities and merchant outlets

2.1 Cash withdrawal facilities with bank issued payment cards

EFTPOS terminals installed in post offices and bank branches, as well as ATMs, offer the possibility of withdrawing cash electronically using bank cards.

One-fifth of the 4,286 ATMs are located in Budapest, 23% of them are in county seats and the rest are operated in other towns around the country. The share of through the wall ATMs is 46% of the total, the rest being stand-alone.

All of these terminals are suitable for cash withdrawal, and 1,722 of them have also credit transfer function. Cash deposits are ensured on 752 equipment.

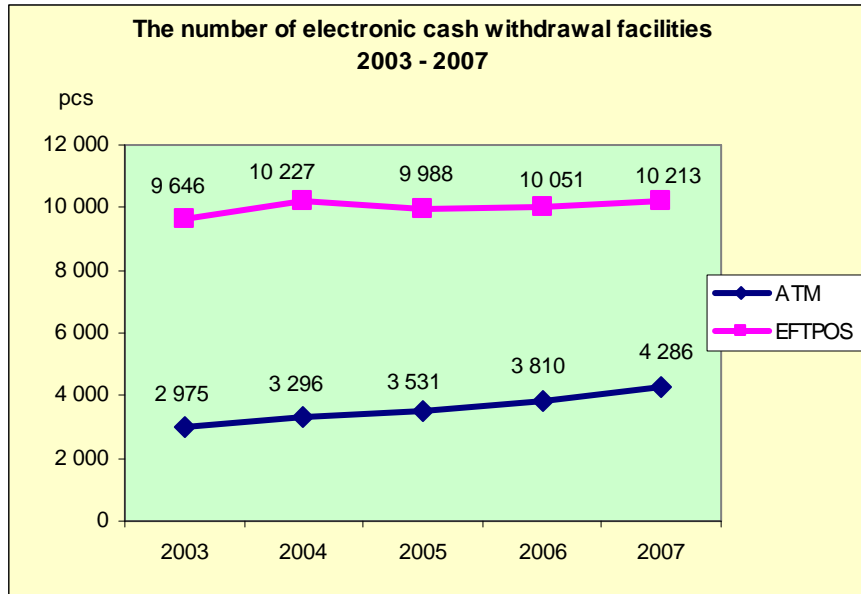
Taking into account the geographical location of ATMs, the role of the 10,213 POS terminals installed in post offices and banks is considered significant, as they provide facilities for cash withdrawal (during opening hours) by electronic means in places where ATMs are not a feasible option for profitability reasons.

The chart below illustrates the change in the number of ATMs and cash withdrawal EFTPOS terminals over the past five years:

⁹ According to the regulations (liability shift) adopted by international card companies, losses from fraud in connection with transactions made in Europe shall be borne by the country that did not equip its cards with the chip, or that fails to provide for chip-reading in ATM and EFTPOS terminals; regardless of whether there is evidence for the negligence of the other party.

¹⁰ SEPA (Single Euro Payment Area): in connection with bank cards the aim is to enable customers to make payments in the euro area as securely, quickly, efficiently and under the same conditions as payments within national borders. To this end, magnetic strips are to be replaced by the safer chips by 2010, or by the date of a country's accession to the euro area.

¹¹ EMV: a standard developed for electronic payment transactions by EMVCo, an international consortium, containing technical specifications for the inter-operability of chip cards.



The number of ATMs has been growing steadily and at a even pace. After a temporary drop in the number of cash withdrawal EFTPOS terminals in 2005 – attributed to office restructuring and the closure of EFTPOS terminals in smaller branches of banks – the number of terminals offering cash withdrawal facilities has resumed rising in 2007, to approximate 2004 levels.

Table 2 illustrates the number of cash withdrawal facilities per million inhabitants available in the past five years:

	2003	2004	2005	2006	2007
number of ATMs per million inhabitants	293	326	350	378	427
number of EFTPOSs per million inhabitants	951	1011	989	997	1017

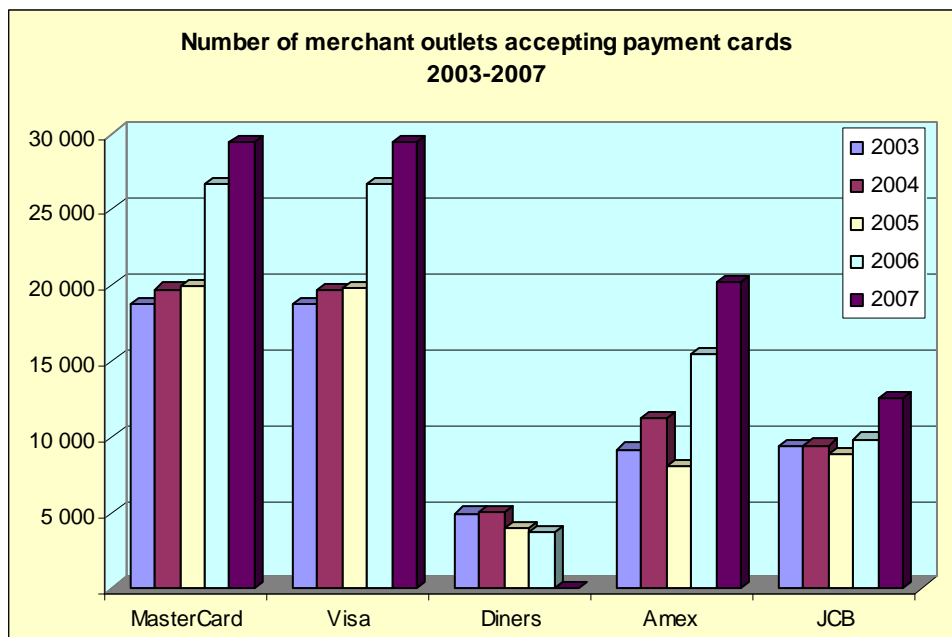
Table 2 Number of cash withdrawal facilities between 2002 and 2007

In the framework of chip migration noted under Section 1, 2% of EFTPOS terminals and 39% of ATMs in banks were capable to accept EMV chip cards at the end of 2007.

2.2 Payment facilities with bank issued payment cards

Eight credit institutions and one financial corporation offer contracts for the acceptance of MasterCard and Visa cards. Two banks are committed to accepting JCB and one bank to accepting Diners cards. As for American Express cards, one bank and one financial corporation have contracted to accept them.

The chart below shows the number of merchant outlets where payments for goods and services with a card has been possible in the past five years:



The number of shops accepting Visa and MasterCard branded cards increased further (by 10%) in 2007. The cards of these two international card companies are accepted in 29,491 shops around the country.

After the temporary decline attributable to the change in the acquiring bank, the number of locations accepting American Express cards continued to rise in 2007 (by 31%), reaching 20,257. JCB cards are accepted in 12,513 retail outlets.

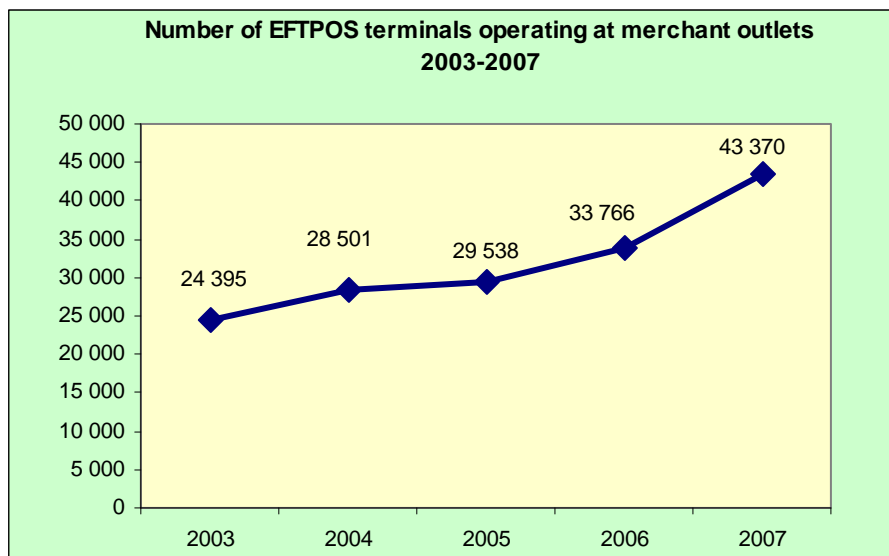
In addition to terminating Diners Club card issuance, Citibank also cancelled its contract for accepting these cards. Only after this did Erste Bank become involved in the Diners Club card acquiring business. Consequently at the end of 2007, Diners Club cards accepted by only 43 retailers for payment.

In addition to physical acceptance points, three credit institutions offer arrangements to Internet merchants. The number of Internet merchants accepting Visa and MasterCard cards is 925, 308 for Amex cards and only 70 for JCB cards. Similarly, three banks are committed to offer arrangements for merchants who accept orders by mail or by phone; payments are accepted at 1,201 locations if made by Visa or MasterCard cards, at 482 locations if made by Amex cards, and by 654 merchants if made by JCB cards.

There are 43,370 EFTPOS terminals available in shops (28% more than in the previous year), all operating with zero floor limit, i.e. transactions are subject to authorisation irrespective of any limit, which greatly contributes to the safe use of cards. For back-up purposes 248 imprinters are also installed in addition to the EFTPOS devices (their number has been falling gradually). All of these operate with a zero floor limit. Payment with bank cards using imprinters is ensured in 744 retail outlets with small turnover volume.

In the framework of chip migration, 80% of EFTPOS terminals operating in merchant outlets were able to accept EMV chip cards at the end of 2007.

Changes in the number of EFTPOS terminals during the past five years are shown in the chart below:



This significant increase compared with the previous year and the rise in the number of merchant acquirers was due in part to the joining by one taxi company to the acquirers last year, with a terminal installed in each car.

Table 3 shows the growth in the number of EFTPOS terminals per one million inhabitants, installed in the cashiers of merchants, during the past five years:

	2003	2004	2005	2006	2007
number of EFTPOS terminals per millions inhabitants	2 405	2 817	2 925	3 351	4 318

Table 3 Changes in the number of EFTPOS terminals at merchants between 2003 and 2007

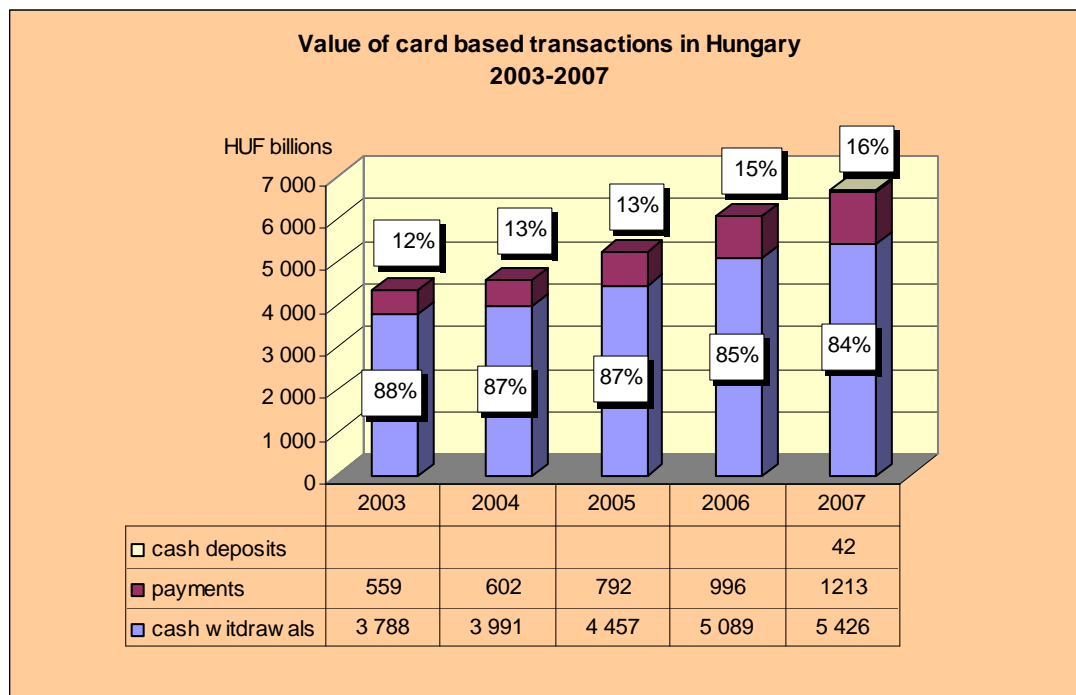
Although Hungary lags substantially behind by international standards, (see the chart in the International overview section at the beginning of this analysis), the number of devices ensuring electronic card acceptance per one million people increased by 80% in five years.

3 Transactions conducted with bank issued payment cards

3.1 Acquiring turnover

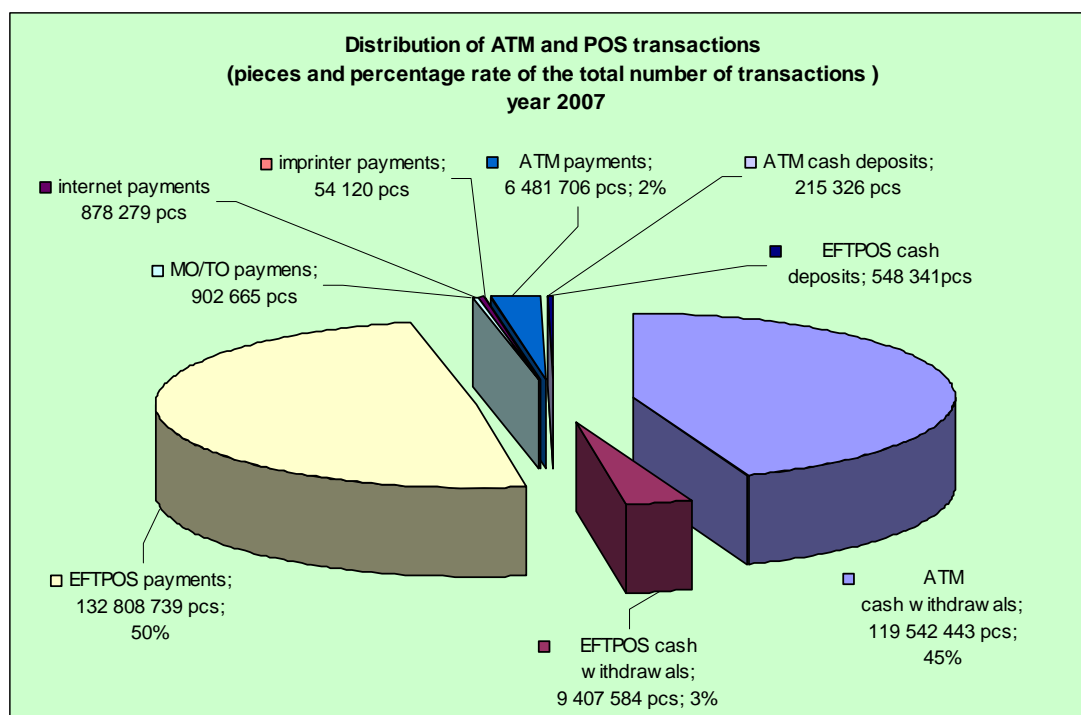
The acquiring turnover consists of payment-, cash withdrawal- and deposit transactions realised inside of the country, conducted with Hungarian and foreign issued cards. Domestic and foreign issued cards were used for 271 million transactions in 2007, in the value of HUF 6,682 billion. The annual rate of growth in terms of the number of transactions was 17%, and it was 10% in value terms.

The chart below shows the developments in the value and percentage share of card-based transactions in Hungary, including cash withdrawals and purchases, in the past five years:



The percentage share of purchases within total turnover has been increasing over the past years, albeit at a modest pace. Growth in the value of purchases has been much more significant: the total value of purchases made last year was 22% higher than in 2006. Previously, the MNB did not measure cash deposits using ATMs; their percentage share and amount both are insignificant.

The chart below shows the 271 million purchases, cash withdrawals and deposits made with cards of Hungarian and foreign issue, in a breakdown according to the type of acquiring equipment:



The number of purchases exceeded that of cash withdrawals for the first time in 2007; domestic and foreign cardholders used their cards on 52 occasions out of 100 transactions to pay for goods and services (this number was 48 in 2006 and 45 in 2005).

Narrowing down the scope of the analysis to the rate of card use by foreigners in Hungary we find that in the same acceptance network foreigners use their cards for purchases more frequently than domestic cardholders: 65% of transactions are payments for goods and services. This is explained in large part by needs when travelling, as opposed to everyday life. The reverse is also true: Hungarian cardholders pay with their cards on 81 occasions out of 100 transactions during travels abroad. This significant difference from the domestic ratio is presumably also influenced by the fact that the card use habits of Hungarians travelling abroad are dominated by purchases. On the other hand, the undeniably wider merchant acceptance network may be another explanation (see the chart showing the number of POS terminals in international comparison at the beginning of the analysis).

The shift within domestic card use habits towards cash saving in a narrow sense, i.e. purchases, has been the function of a number of factors: the widening of the merchant acceptance network, starting in 2006 (see the chart showing the number of merchant acceptance points in Section 2.2), on the one hand, and the strengthening in Hungarian cardholders' confidence towards this means of payment and a resulting change in payment habits. The latter is served by the increasingly stringent domestic consumer protection rules, harmonising with European Union directives, which the MNB's publication entitled 'Bankkártyák' helps to better understand (www.mnb.hu/Kiadvanyok/Penzforgalomrol_mindenkinek/Bankkartyak). The procedure launched by the Hungarian Competition Authority in spring 2008 to examine

the pricing of interchange fees¹² applied in the Hungarian retail market points to a further increase in the number of merchant acceptance points.

The overwhelming majority of cash withdrawals were conducted through 4,286 ATMs, with a fraction of cash withdrawals conducted through 10,213 POS terminals installed in post offices and banks. The number of cash deposits is insignificant.

Most of the payment transactions conducted through the 43,370 electronic EFTPOS terminals installed in retail check-out counters. The percentage share of payments made through internet and by way of imprinters was less than 1%. There was a 1% fall in the share of payments conducted through ATMs in 2007 compared with the previous year. Examples of these are mobile phone top ups and settlements of telephone and utility bills.

The average rate of use of an ATM, including cash withdrawals, deposits and purchases, was 80 transactions a day, down from 87 in the previous year. The same figure for EFTPOS terminals, suitable for cash withdrawals and deposits, in banks and post offices was 2.6 transactions per day on average. The average rate of use of EFTPOS terminals installed in merchant acceptance points was 8 transactions (9 in 2006).

3.2 Issuing turnover

In 2007, Hungarian cardholders used their cards on 229 million occasions in Hungary and abroad, in a value of HUF 6,555 billion.

Table 4 shows the increase in the volume of transactions conducted in Hungary and abroad with cards issued by Hungarian banks (in comparison with the preceding year), as well as the frequency of card use in the past five years:

	2003	2004	2005	2006	2007
value of transactions/HUF millions	4 220	4 769	5 220	5 984	6 555
growth rate	24%	13%	9%	15%	10%
volume of transactions/thousand pcs	163 571	182 214	202 951	230 139	259 338
growth rate	15%	11%	11%	13%	13%
frequency of card use/month	2,19	2,32	2,29	2,33	2,51

Table 4 Turnover of Hungarian issued cards and the frequency of their use between 2003 and 2007

A comparison of the table with the increase in the number of bank cards reveals that, while the number of cards rose by 38% in five years, the value and number of transactions conducted with cards surged by more than a half. Following a temporary drop in 2005, the monthly rate of use of bank cards rose again in 2006–2007, albeit at slow pace.

Among the reasons for the increasing use of cards, and in particular their use for payments (Table 5), are the more stringent consumer protection regulations already discussed in Section 3.1, and the improvements in bank facilities and practices designed

¹² Interchange fee: a transaction fee, expressed as a percentage of the purchase transaction (currently there is no fix fee in Hungary), payable by the acquiring bank to the issuer. The acquiring bank passes this fee on to the merchant as part of the merchant service fee. In December 2006, the European Competition Authority took a decision in the case of the European regional interchange fees of MasterCard International, announcing that in 2007 it would also launch an investigation into fees charged by Visa International. Interchange fees are also related to ATM transactions. In such cases the fee is paid by the issuing bank to the acquirer, and its amount is built into the cardholder's fees.

to enhance the security of card use (chip migration, regular improvements in monitoring systems, transaction confirmation by follow-up SMSs). However, the positive impact of these measures will be felt only if better conveyed to customers. For this reason, it is very important to keep cardholders informed and trained at all times.

Looking at transactions conducted in Hungary with domestically issued cards within total issuing turnover, and focusing only on payments, Table 5 reveals the following picture:

	2003	2004	2005	2006	2007
value of payments/HUF millions	428 192	539 439	658 281	853 413	1 029 236
growth rate	35%	25%	22%	30%	21%
volume of transactions/thousand pcs	53 202	66 760	81 696	105 659	128 516
growth rate	35%	26%	22%	30%	22%
average value of transactions	8 048	8 080	8 058	8 077	8 009
growth rate	0%	0%	0%	0%	-1%
consumer price index (yearly average)	4,7%	6,8%	3,6%	3,9%	7,98%
frequency of card use/month	0,71	0,85	0,92	1,07	1,24

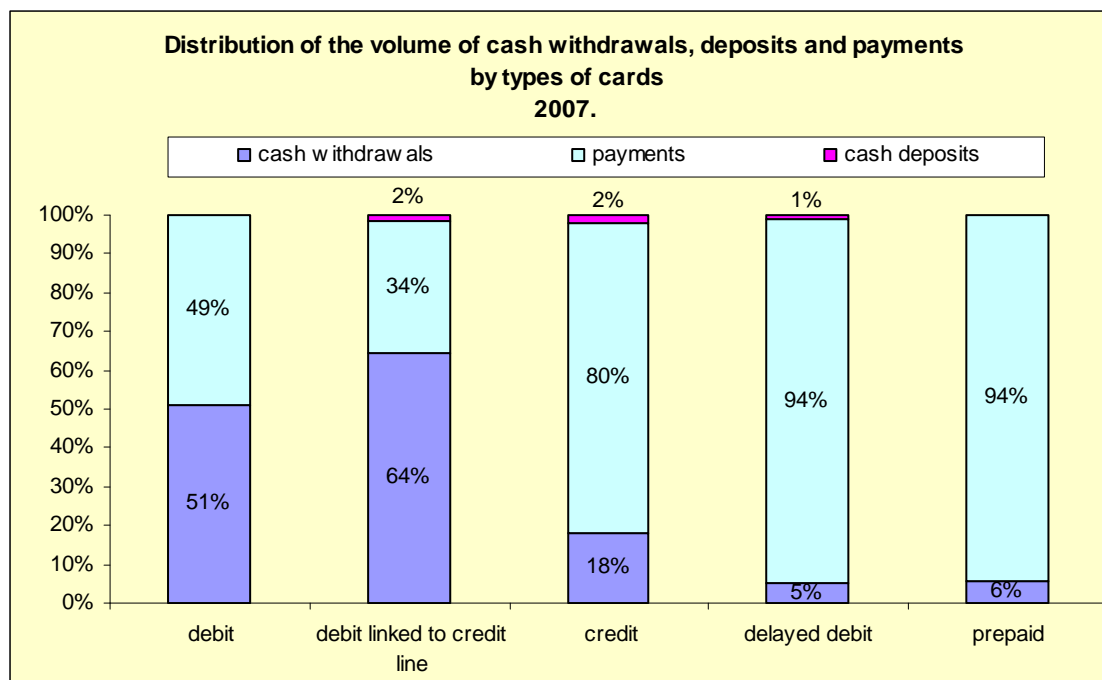
Table 5 Volume of payment transactions made with Hungarian issued cards and the frequency of their use between 2003 and 2007

Over a period of five years, the volume and value of payments rose at a much faster rate than the rate of growth in the overall sector (for the latter, see Table 4. However, while the consumer price index doubled in five years, the rate of growth of the value and number of purchases both fell back to their 2005 levels. Looking at the consumer price index and the frequency of purchases over the five-year period we find that there is no close relationship between payments with bank cards and developments in the CPI index.

The frequency of payments rose slightly: all domestically issued bank cards were used on 1.24 occasion for payment transactions on average in 2007. That equals 15 payment transactions per year.

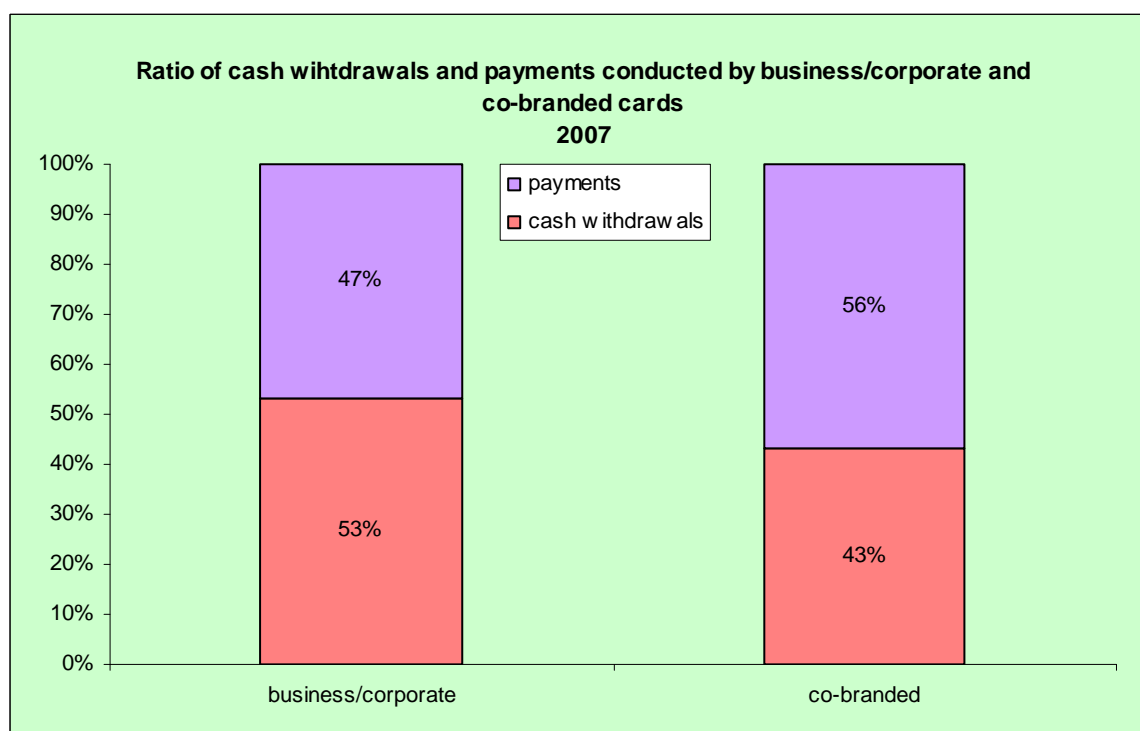
The average transaction value edged down by 1% in 2007, accompanied by variable rates of inflation. From this it follows that an increasing number of purchases of small value are conducted with payment cards.

The percentage shares of cash withdrawal and payment transactions were analysed in Section 3.1 according to whether the cardholder uses the card inside or outside the country: the share of purchases was 52% for domestic transactions. Now let us take a look at this ratio according to the various types of card:



Much fewer payment transactions are conducted with debit cards (including cards linked to credit line but function as a debit card; that is without interest-free period) than with those linked to a credit line (credit, delayed debit cards). As for the latter, the cardholder may exploit the advantages offered by the interest-free period.

The ratios of cash withdrawals and purchase transactions conducted with co-branded and business cards are shown in the chart below:



Surprisingly, the percentage share of payments made on co-branded products, including facilities offering price discounts or enabling charity donations and issued together with merchants or non-profit organisations, is only slightly higher than the total for the card business (the latter is 52%).

One would think that purchases are also predominant with business cards, as employers apply for these products for their employees to cover their costs arising in the course of their official duties. In contrast, as the chart shows, in more than half of transactions employees withdraw cash from ATMs and they cover official expenses with the money obtained.