

## Payment flows of interbank payment and settlement systems in 2005

### 1. Volume and distribution of interbank payment activities between payment systems

The interbank payment system involves the function of VIBER, (the Hungarian Real-Time Gross Settlement System, RTGS) the home accounting system of MNB as well as that of the Interbank Clearing System (ICS). Direct participants are credit institutions and other institutions (e.g. the Hungarian State Treasury Ltd., the Hungarian Post, etc.) that keep accounts with MNB. Credit institutions can be indirect participants that send or receive payment instructions via another bank or the MNB.

VIBER had 37 direct participants at the end of 2005: this number grew by one direct member, another credit institution became a branch office, however remained a direct participant of the system. Indirect participants number 196 to date. In 2005, VIBER customer initiated payments were accepted in 3 708 branches and payment instructions were transmitted from 3 757 branches. In December 2005, ICS members numbered 57, with 2 more banks joining the system during the year. The number of indirect ICS members was 177 at the end of the year. The period under study was characterized by a large number of newly established branch offices. The number of new branches registered with MNB grew by 97.

In 2005, the value of payments implemented in the interbank settlement turnover accounted for HUF 650 409 billion, indicating a 26.3% rise over the previous year. The rate of growth in payment activities is twice as that of the previous year, although there are signs of slowing down compared to the rate of growth in previous years (Chart 1.) In 2005, the number of interbank payment transactions represented a total of **187.5** million, which is 8.4% higher than the number of payment transactions settled in the previous year. The number of settled payment instructions is a more moderate figure than the value of payment turnover, although the number of such instructions is characterized by a steady increase.

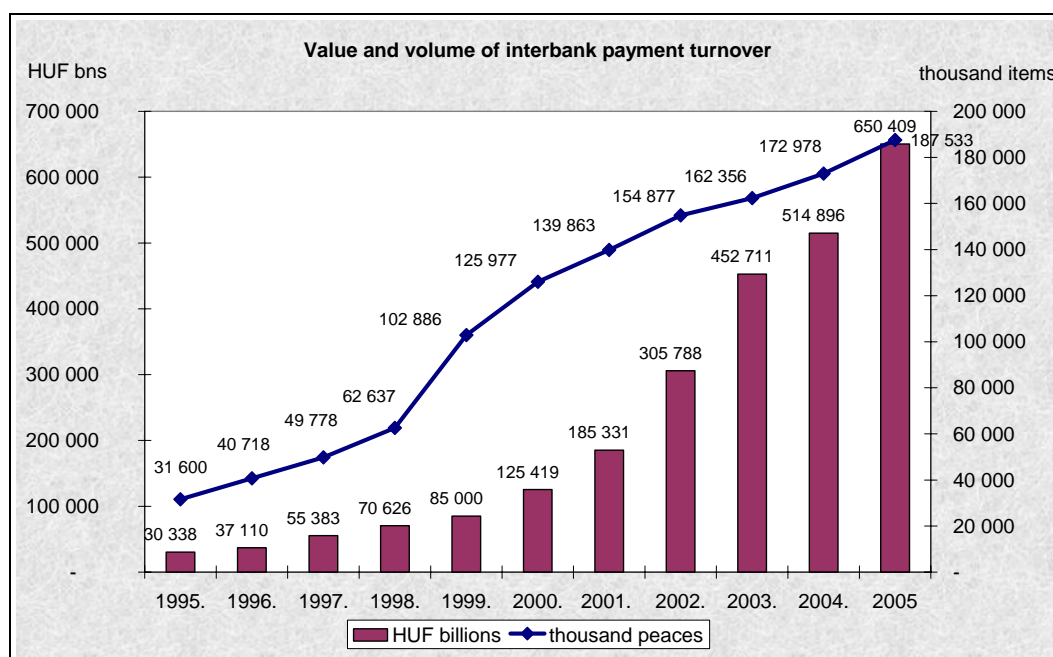


Chart 1.

In 2005, interbank payment turnover was 29.8 times of the estimated GDP, and this proportional number shows a significant increase as compared to previous years. (Chart 2.)

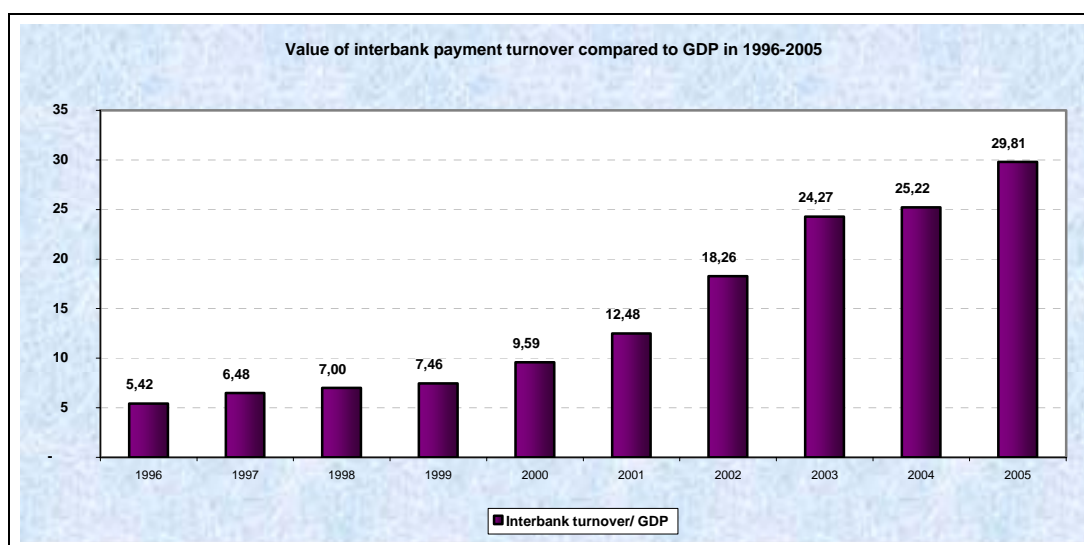


Chart 2.

MNB processes a continuously growing proportion of the value of payment turnover (VIBER and the home accounting system combined). This value has increased from the initial 48% to over 91% by 2005, which indicates that the settlement of credit transfers representing exceptionally high individual value via VIBER is shows an increasing trend (Chart 3.).

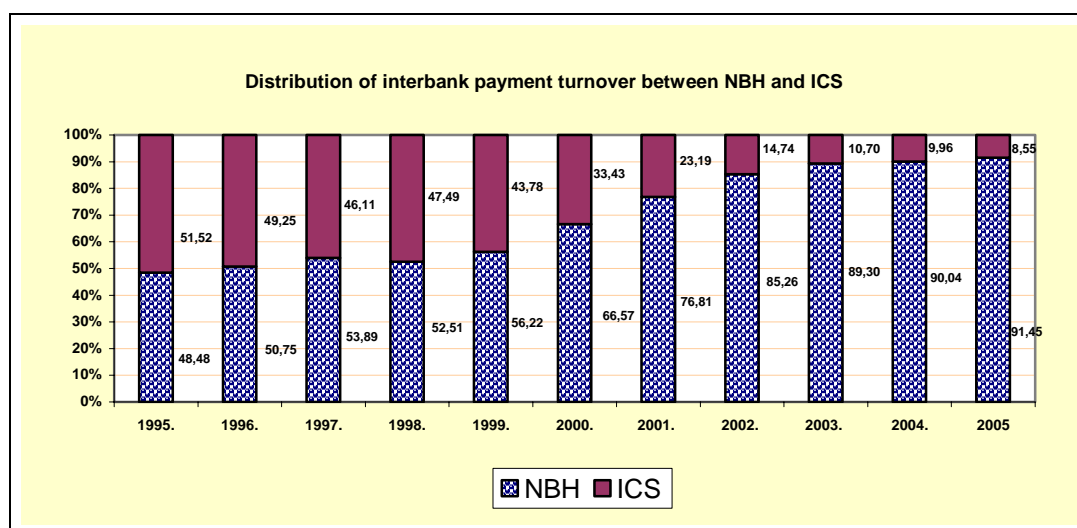


Chart 3.

In terms of volume of payment instructions, this figure is reversed: the proportional share of MNB is 0.4% (a more rapid rate of growth does not effect the proportional share), since ICS manages the settlement of mass low-value transactions (this of course does not mean that there is a prescribed cut-off level in terms of value of payments when choosing between the two systems).

ICS is the system designed for handling mass payment transactions, the number of processed transactions exceeds 15 million on a monthly basis. The majority of these are payments for low value. Growth is significant year by year, however, the proportional share does not demonstrate any significant changes (Table 1.).

	2001.	2002.	2003.	2004.	2005.
<b>ICS</b> <b>VIBER</b> <b>MNB home</b> <b>accounting</b>	<b>Volume of payments thousand</b>				
	139 573	154 482	161 855	172 335	186 732
	240	337	430	555	676
	50	58	71	88	125
<b>Total</b>	139 863	154 877	162 356	172 978	187 533
<b>ICS</b> <b>VIBER</b> <b>MNB home</b> <b>accounting</b>	<b>Value of payments HUF bns</b>				
	42 985	45 074	48 456	51 320	55 610
	139 757	258 931	396 633	449 798	568 652
	2 588	1 782	7 622	13 778	26 147
<b>Total</b>	185 331	305 788	452 711	514 896	650 409

Table 1.

Corresponding to the basic functions that are characteristic of the systems, the individual value of payments was significantly lower in ICS than in VIBER: in 2005 the average was HUF 297.8 thousand/item. After the system was launched, the average amount decreased significantly and from 2002 this value remained constant. In VIBER, the average amount of transactions was HUF 840.9 million/item. The early years of VIBER operation were characterised by a growth of 20-30%. Following the year 2003, which demonstrated an exceptionally high average amount of payments (caused by currency speculation against the Forint, and by the widening of the bandwidth of the Hungarian national currency in mid-year leading to an exceptionally high growth in payment turnover value) the average amount continued to increase again slightly (Chart 4.).

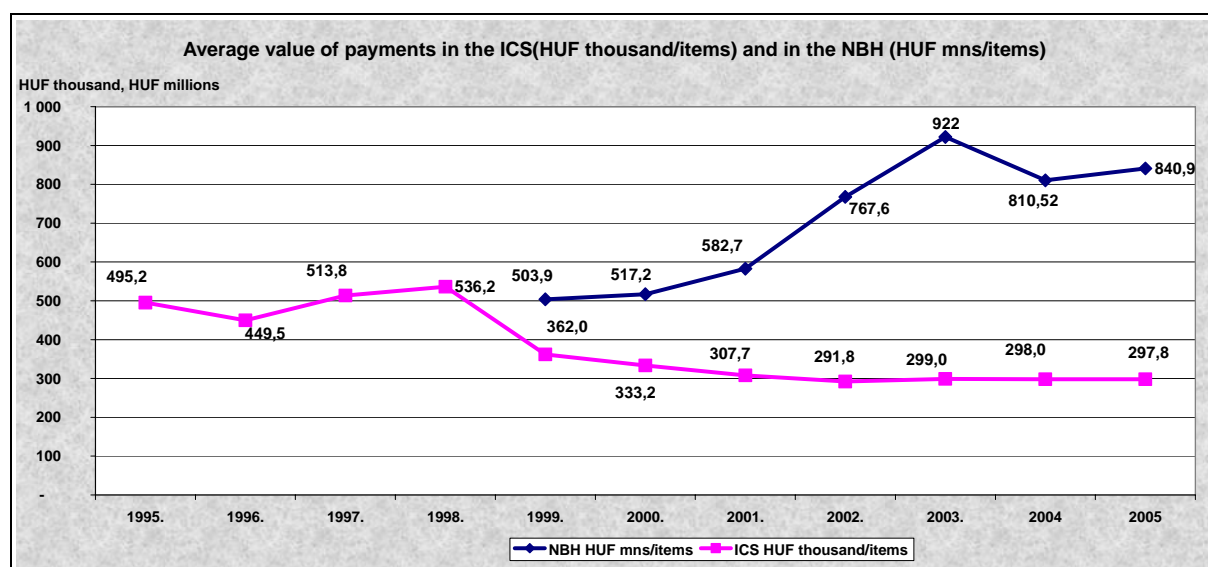


Chart 4.

## Cash payment services offered by the Hungarian Post

The cash payment services carried out by the Hungarian Post are not considered to be a payment system, although postal cash turnover plays an important role in retail payments. The volume of payments processed by the Post grew by nearly 7% in 2005, accounting for a total volume of 316 million payments. The proportional share between postal cash payments and the volume of transactions processed by ICS has not really demonstrated any changes in the last 5 years, with the figure fluctuating around 1.7 (Chart 5.)

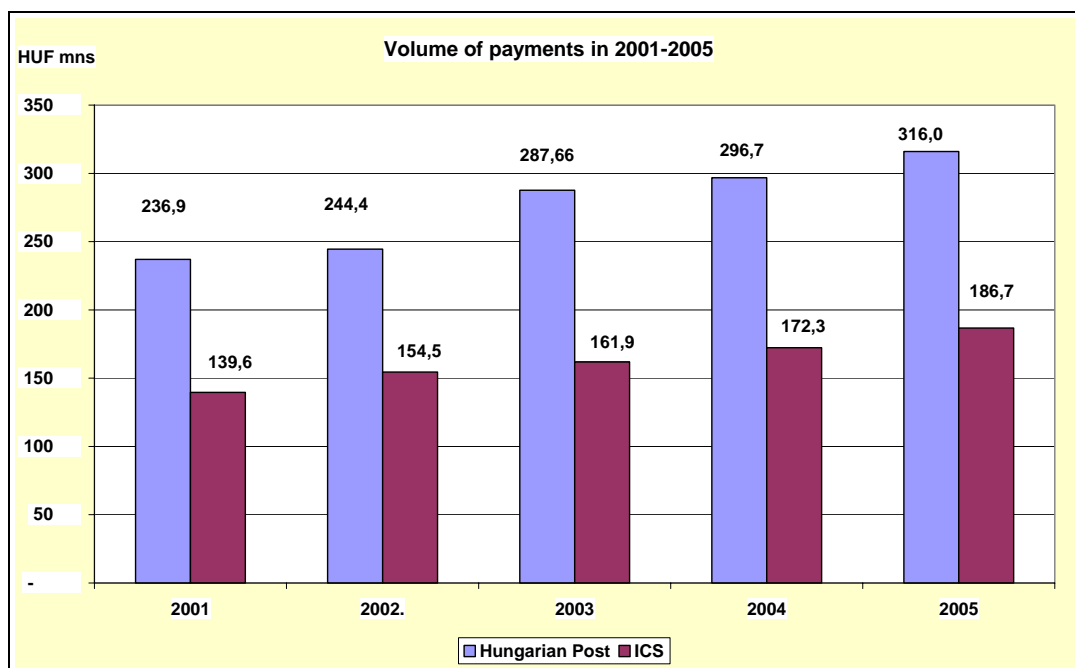


Chart 5.

Within postal cash payment services, inpayment money order takes the leading role, with a significant proportion represented by payments of pensions by cash delivery order, also, bank card payments via the Post are showing modest signs of growth in terms of volume (Chart 6.).

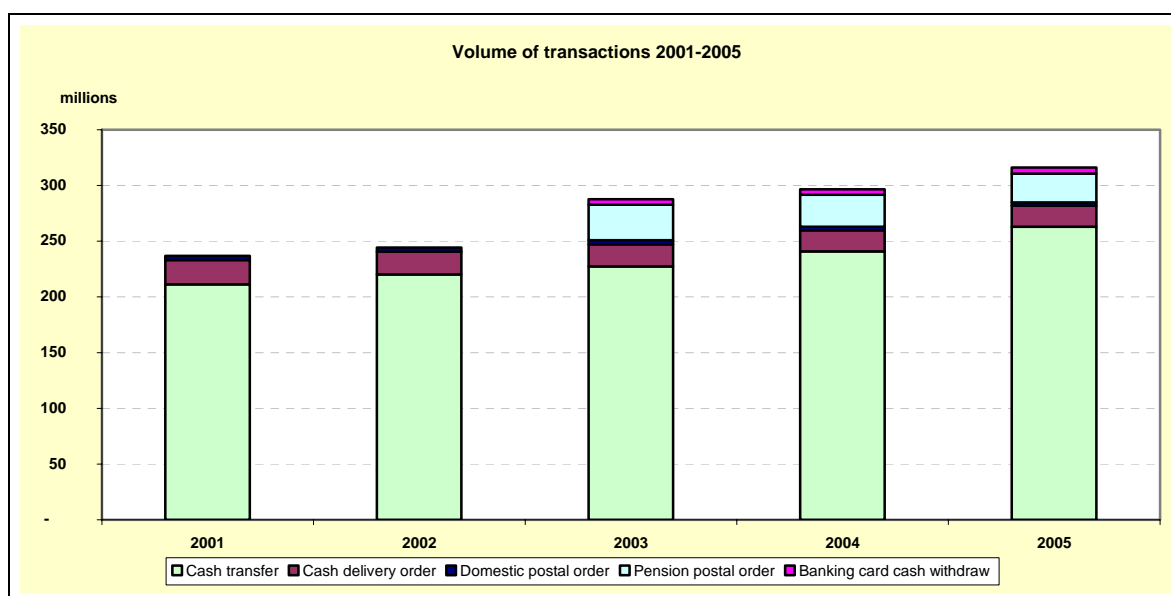


Chart 6.

A comparison of values shows that payment turnover managed by ICS is significantly higher in value (more than 11 times higher) than that of payment turnover handled by the Post (Chart 7.)

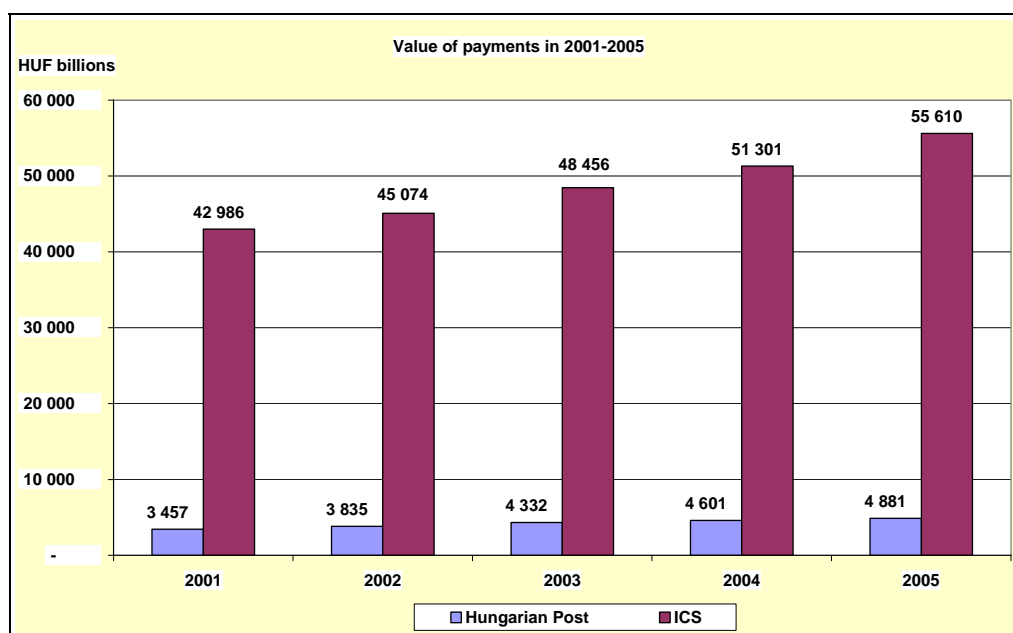


Chart 7.

Inpayment money orders take the leading role (HUF 2 767 billion), accounting for over 56% of postal cash payments, although cash delivery orders also account for a significant share (HUF 1 464 billion). The absolute value of domestic postal money orders is showing a decreasing trend. Withdrawal of cash with bank card represents a relatively small share (HUF 214 billion), although it is showing dynamic growth (Chart 8.)

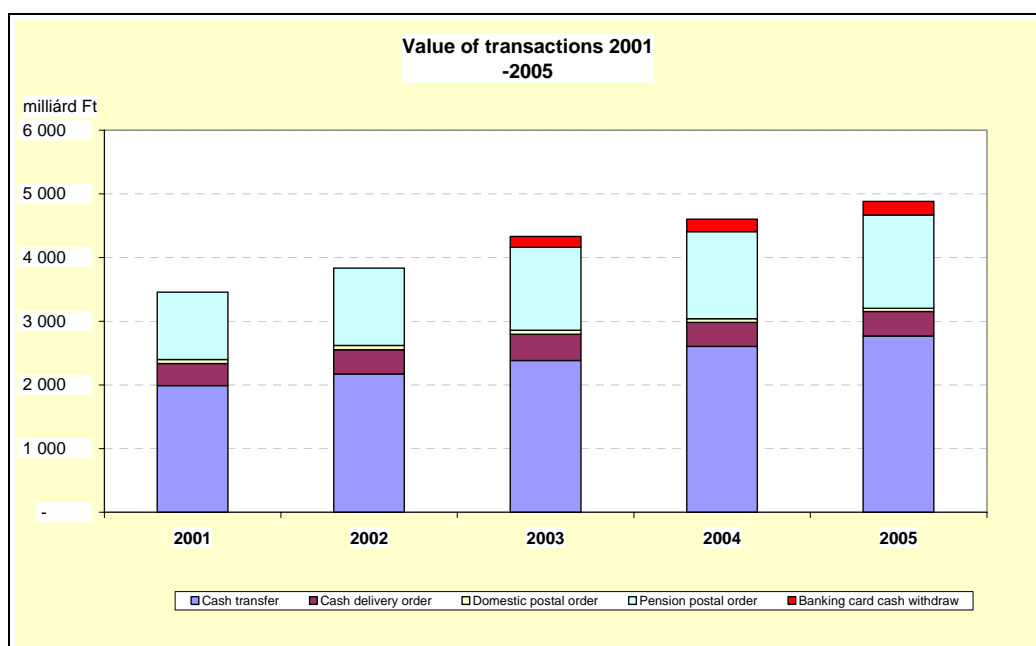


Chart 8.

Average amount per item for postal transactions is HUF 15.5 thousand/item and this figure has stagnated over the last three years.

## 2. Characteristic data of the different payment systems

### 2.1 Interbank Clearing System (ICS)

ICS processed 186.7 million payment instructions in 2005, representing a total amount of HUF 55.6 thousand billion. On a monthly basis this accounts for HUF 4 634 billion, and on average, 15.6 million payment transactions (showing an 8% increase over the previous year both in terms of value and volume of transactions). Recently, monthly payment activities (both in terms of value and volume of transactions) have been demonstrating a slightly increasing trend, with strong fluctuation during the year, and the highest turnover of monthly payments was registered towards the end of the year (Chart 9.).

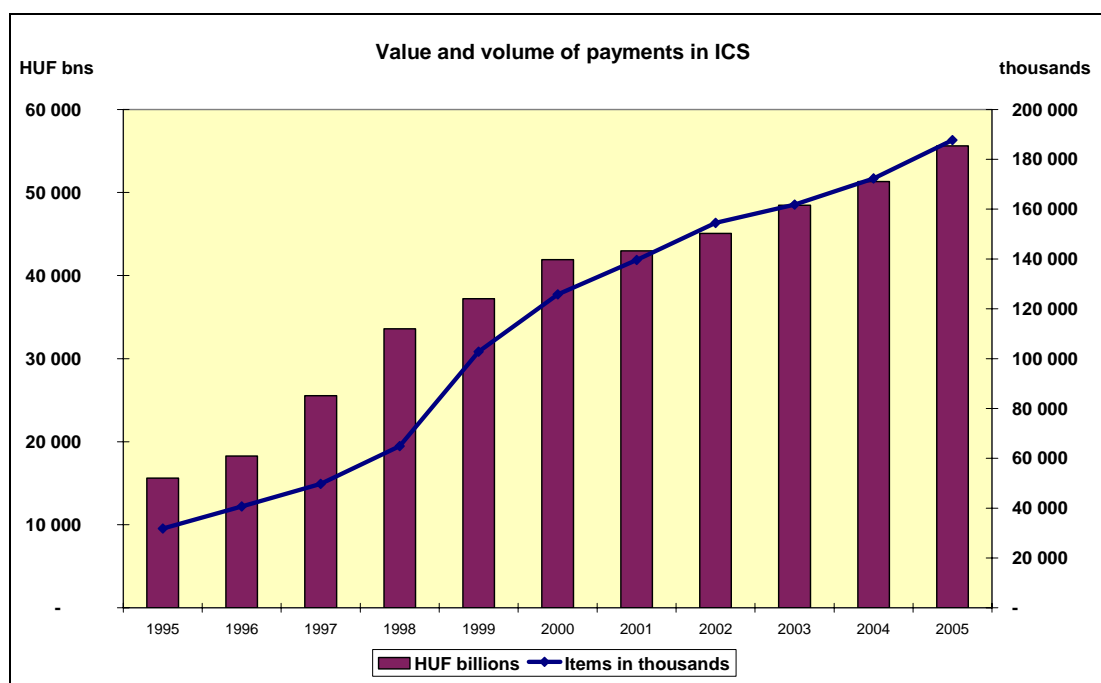


Chart 9.

In 2005 credit transfers accounted for over 90% of the value of payments processed by ICS. Besides, the value of direct credits is also significant. (7.4%). However, in terms of volume of transactions, credit transfers account only for about 60% and the share of dynamically developing direct payments (debits and credits) amounts to 37%. The rapid growth of interbank settlement of postal money orders is also prominent (Table 2.).

Type of payments	2001	2002	2003	2004	2005
<b>Value of payments HUF billions</b>					
customer-initiated credit transfer	41 131	42 425	45 189	47 588	50 827
bank-to-bank transfers	29	28	2	1	1
direct credits	1 499	2 194	2 756	3 179	4 136
direct debits	88	107	128	157	175
other transactions	220	216	274	312	312
rejected payments	18	20	21	28	33
postal cash delivery orders	n.a.	84	87	53	126
<b>Interbank Clearing System</b>	<b>42 985</b>	<b>45 074</b>	<b>48 456</b>	<b>51 320</b>	<b>55 610</b>
<b>Number of payments thousand</b>					
customer-initiated credit transfer	92 522	95 782	98 942	103 498	109 882
bank-to-bank transfers	0	0	0	0	0
direct credits	26 392	34 536	36 766	40 586	44 240
direct debits	19 960	21 719	22 935	25 392	25 556
other transactions	548	341	411	540	614
rejected payments	151	156	132	163	183
postal cash delivery orders	n.a.	1 949	2 668	2 156	6 256
<b>Interbank Clearing System</b>	<b>139 573</b>	<b>154 482</b>	<b>161 855</b>	<b>172 335</b>	<b>186 732</b>

Table 2.

The concentration ratio at ICS (namely, the proportional share of the five banks handling the largest payment turnover in the total turnover) in 2005 was 58.86% in terms of value, showing a slight increase year by year. Based on the number of transactions processed, the ratio was 61.78% and is thus nearly constant. The 5 banks initiating the largest turnover in terms of value and volume of payments are not the same banks. On the whole, ICS shows only moderate signs of concentration (Table 3.).

<b>Concentration ratio of ICS payments %</b>							
<b>Volume</b>				<b>Value</b>			
2002.	2003.	2004.	2005.	2002.	2003.	2004.	2005.
61,47	61,00	61,76	61,78	56,03	56,77	56,86	58,86

Table 3.

The 10 banks with the largest turnover of payments account for 85% of total payment turnover at ICS (their monthly volume of payments ranges from HUF 245-1 300 billion), and in terms of number of payments, this volume represents 90%, (with 520- 2 500 thousand transactions processed monthly by each bank). The proportional share of the 10 banks handling the largest volume of payments has not changed as compared to 2004.

Credit transfers with an individual value of over HUF 10 million account for 59% of monthly payment turnover (in terms of value), representing a larger proportional share as compared to the previous year, and within that category, 21% of the turnover is ranked in the value range exceeding HUF 1 billion (Chart 10.).

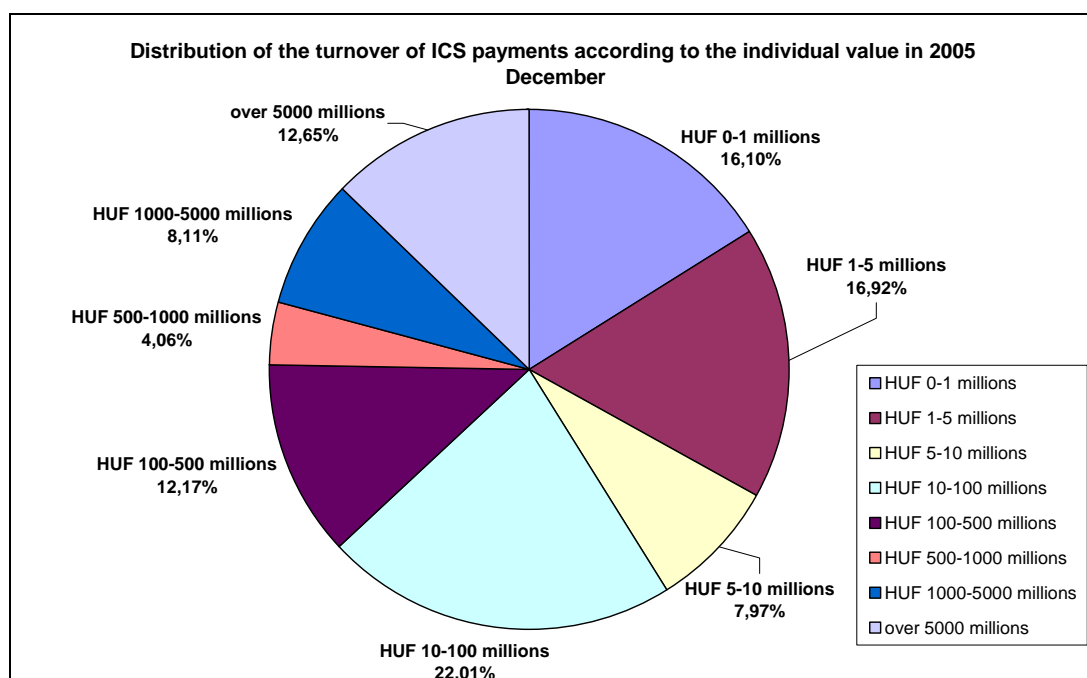


Chart 10.

Table 4. gives an indication of the breakdown of monthly payment turnover by number of transactions and by the changes in numbers of payments in the individual value ranges, reflecting a certain degree of restructuring of former trends: the number of payments under HUF 1 million continues to represent 94% of the total number of payments, growth as compared to the previous year has increased (3.7% over the former 1.4%), and demonstrates the most rapid growth in payments exceeding HUF 5 billion (48.6%, linked primarily to one specific ICS participant<sup>1</sup>).

Value ranges	Volume of ICS turnover in numbers			Changes %	
	Dec. 2003.	Dec. 2004.	Dec. 2005.	2004/2003	2005/2004
HUF 0-1 millions	9 192 223	9 324 206	9 667 705	101,4	103,7
HUF 1-5 millions	447 876	436 547	454 213	97,5	104,0
HUF 5-10 millions	60 534	60 794	65 617	100,4	107,9
HUF 10-100 millions	46 064	46 004	51 508	99,9	112,0
HUF 100-500 millions	3 174	3 086	3 497	97,2	113,3
HUF 500-1000 millions	355	352	331	99,2	94,0
HUF 1000-5000 millions	210	214	243	101,9	113,6
over 5000 millions	28	35	52	125,0	148,6
<b>összesen</b>	<b>9 750 464</b>	<b>9 871 238</b>	<b>10 243 166</b>	<b>101,2</b>	<b>103,8</b>

Table 4.

In 2005, a total of 183 thousand payment instructions were rejected by ICS representing a total value of HUF 32.9 billion, which exceeds the figure for the previous year both in terms of value and volume (growth was 16.6% and 12.6% respectively), although the proportion of rejected transactions shows a decreasing trend, as this figure was 0.065% in 2005, compared to 0.094% in the previous year.

In 2005, the average daily number of clearing transactions transmitted through ICS was 732 thousand. On the annual peak date (9 March 2005), the number of payments totalled 3 088 thousand, over four times the average number (due, among other things, to pension

<sup>1</sup> Hungarian State Treasury



payments). The average daily payment value in this year was HUF 218 billion, and on the peak value day (21 December 2005) payment turnover amounted to HUF 769 billion, which was 3.5 times higher than the average (one bank was in queue on this day).

In 2005, there were 23 cases of delayed processing of payments in the morning accounting for HUF 77.2 billion (this figure is more favourable than the figure for 2004, with 26 cases accounting for HUF 141.6 billion). While in 2004 the cause for processing in the morning was, in most cases, late transmission, in 2005 there were 18 cases representing a total value of HUF 31 billion caused by shortage of funds during night processing (affecting 14 banks) and due to late transmission, there were 5 cases representing a total value of HUF 46 billion in payment instructions that were processed late the next morning (when the bank transmitted the payments to ICS after 02:00 a.m./4 banks/, the settlement of which is possible only late in the morning).

## 2.2 Payments settled in systems operated by MNB

The MNB systems (VIBER and the home accounting system) settled a total of 801 thousand payment instructions accounting for HUF 594 799 billion, with the majority of these payments (95.6% of the value of payments, and 84.4% of the number of payments) processed in the real-time settlement system (Table 5.).

	2004			2005		
	Value HUF bns	Volume Thousands	Average HUF mns	Value HUF bns	Volume Thousands	Average HUF mns
<b>VIBER (RTGS) payments</b>	<b>449 798</b>	<b>555,0</b>	<b>810,5</b>	<b>568 652</b>	<b>676,2</b>	<b>840,9</b>
- bank to bank transactions	392 391	312,9	1 254,0	483 632	365,4	1 323,5
- DVP transactions	40 015	114,1	350,8	56 678	139,1	407,4
- customer transactions	13 234	93,6	141,3	19 779	126,5	156,3
- FX transactions	5	15,0	0,3	17	5,4	3,2
- deposit with NBH	482	0,2	2 242,7	4 097	0,7	5 643,3
- NBH and other transactions	3 672	19,1	192,6	4 448	39,0	114,0
<b>NBH accounting system</b>	<b>13 778</b>	<b>88,1</b>	<b>156,4</b>	<b>26 147</b>	<b>124,7</b>	<b>209,7</b>
- FX deals	1 074	79,8	13,5	744	109,9	6,8
- FX deals with NBH	n.a.	n.a.	n.a.	127	0,2	824,2
- deposit with NBH	12 026	1,7	7 162,4	24 443	2,3	10 839,7
- bank to bank transactions	n.a.	n.a.	n.a.	237	2,0	117,9
- customer transactions	n.a.	n.a.	n.a.	166	0,9	183,4
- other transactions	679	6,6	102,5	430	9,5	45,5
<b>Total transactions with NBH</b>	<b>463 576</b>	<b>643</b>	<b>720,9</b>	<b>594 799</b>	<b>800,9</b>	<b>742,7</b>

Table 5.

### 2.2.1. VIBER

The value of payment transactions processed during the year via the real-time settlement system accounted for HUF 568.7 thousand billion, and the volume of payments processed annually was 676.2 thousand. The value of payment turnover grew by 26.4%, while the volume of payments grew by 21.8% as compared to the previous year. Annual growth in payment turnover is shown in Chart 11.

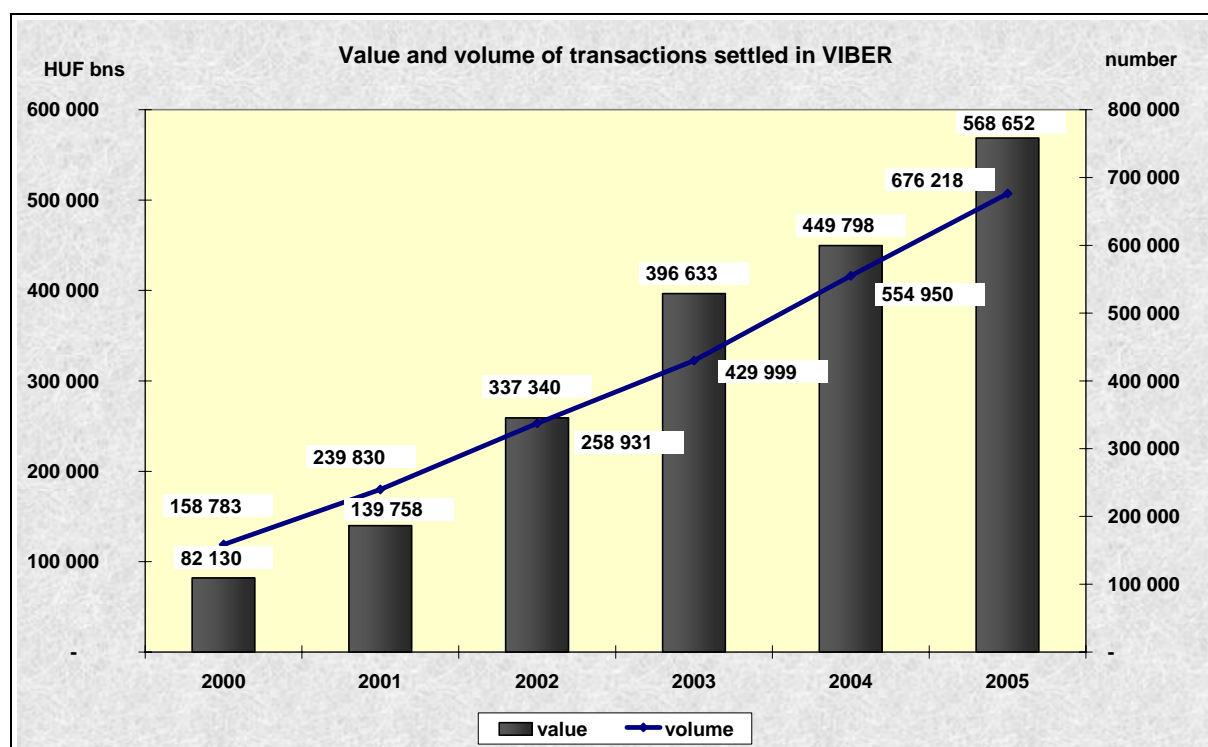


Chart 11.

Number helyett item a diagramban!!

VIBER processes 45-61 thousand transactions monthly, the average was 56.4 thousand/month. In 2005, TARGET member countries processed an average of 324.9 thousand items/month in domestic payments via the RTGS systems; payments processed by VIBER achieved only 17.3% of that figure. Six member countries – of these, 3 member countries of the Euro area – processed a lower volume of domestic (euro) payments than VIBER (Chart 12.). (Poland is an indirect member, payment instructions submitted by this country are processed by the Italian BI-REL system.)

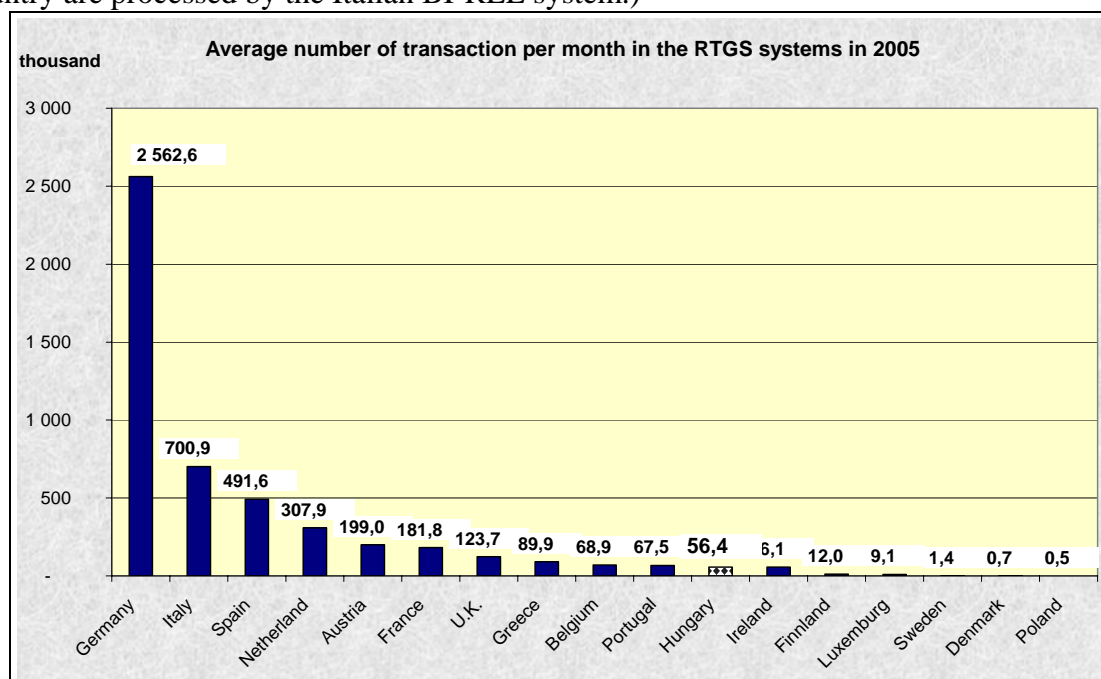


Chart 12.

The average monthly value of domestic euro payments was EUR 1 800 billion/month in the TARGET members' systems in 2005, and EUR 189.6 billion/month in VIBER (Chart 13.) According to the „ranking” of value of monthly payments, the RTGS systems of two Euro area countries and two „out” countries handle a lower monthly average turnover than VIBER (including the indirectly linked Polish system). However, Hungary achieves only 10.5% of the EU average (the figure for the current year exceeds the figure of 9.1% for the previous year).

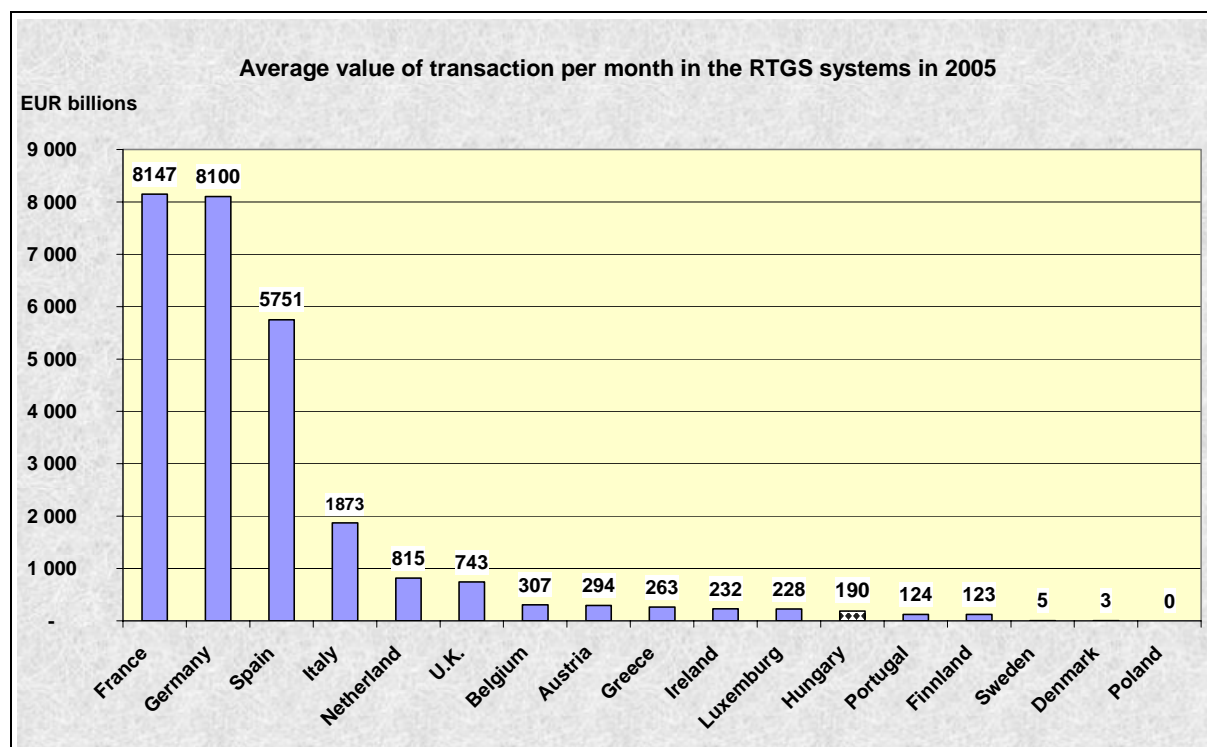


Chart 13.

In 2005, the average value of payments processed via VIBER was HUF 840.9 million/item (EUR 3.4 million/item), which exceeds the previous year's average by 3.8%. The average value of payments was EUR 8.5 million/item in domestic euro payments processed by RTGS systems of TARGET members. The characteristic EUR 3.4 million/item processed via VIBER accounts for 39.4% of the EU average, ranking us in a higher position in terms of domestic average payment value processed by RTGS systems of 6 EU member countries and 2 „out” countries.

In VIBER, the average daily volume of payments was 2 652 in 2005 (in 2004, this figure was 2 185). The daily average value of payments was HUF 2 230.0 billion (in 2004 this figure was HUF 1 770.9 billion). The largest volume of payments on a single day during the year was counted on 21 February, with 5 191 transactions processed (in the history of VIBER, the peak day was 21 January 2003, with 5 221 payments processed), and in terms of value the peak day was 16 March, with a turnover value of HUF 4 190 billion (the highest value to date was HUF 6 043 billion on 30 January 2003).

In the VIBER system, the growth of the average daily value of payments was 26.0% in 2005, as compared to 2004, and within that category, the growth in payment instructions linked to interbank money market transactions, accounting for the greatest share of that figure, was the highest in terms of absolute value (HUF 91 billion), showing a growth less than the average (23.3%). In terms of value, the amount of overnight deposits at MNB grew to 8.5 times that of

the previous year<sup>2</sup>, and about 30% of the transactions were concluded by the banks in December (mostly on the days after 20 December). The increase by 50% in the value of payments initiated by the bank's customers is considered to be a positive development, meaning that the bank's customers have initiated payment instructions of nearly HUF 20 billion<sup>3</sup> in VIBER. The growth of 41% in securities transactions is due primarily to OTC transactions. Changes in the distribution of types of transactions by value are shown in Chart 14.

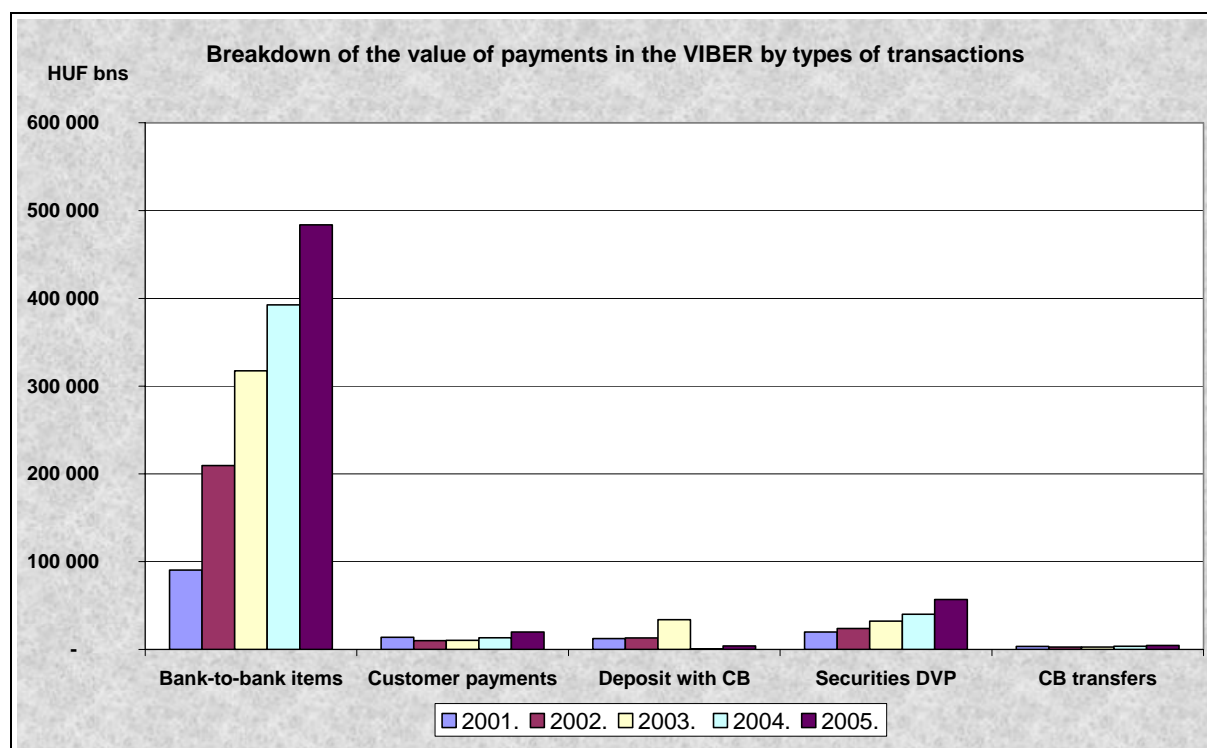


Chart 14.

The growth in the volume of payment transactions processed in the RTGS system is more moderate, growing by 21.8% over the previous year. Most rapid growth (35.1%) has been identified in the number of payments initiated by customers of the bank, although the rise in transactions concluded with MNB is also significant (30.3%). Changes in volume of payments by type of transaction are shown in Chart 15.

<sup>2</sup> An overnight deposit transacted during VIBER operating hours is debited in VIBER (unless VIBER closing time is too close, in which case the debit is made in the home accounting system). A two-week deposit placed with MNB is debited during VIBER operating hours in home accounting system (if the account's morning balance of funds is insufficient, the debit will be queued in VIBER).

<sup>3</sup> The value of customer payments is not in line with expectations (many payment instructions of large value are processed by ICS, implying longer settlement periods than one day and not necessarily cheaper than the VIBER fee), the primary reason for this is the unreasonably high fee charged by banks.

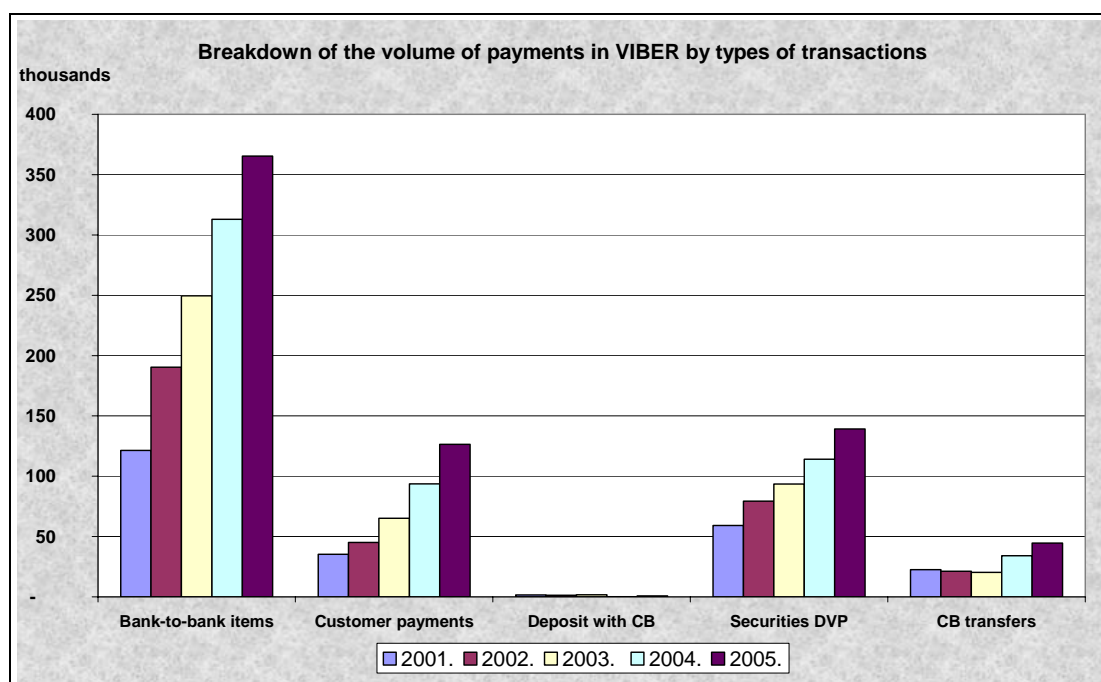


Chart 15.

The average value of payments processed in VIBER was HUF 840.9 million/item, which is by 3.8% higher than the value for 2004. The largest individual value by payments is represented by deposit transactions concluded with MNB (Table 6.).

Average value of transactions HUF mns						
	Bank-to-bank items	Customer payments	Deposit with CB	Securities DVP	CB transfers	Total
2001.	744,29	389,20	8 317,76	336,65	147,95	582,81
2002.	1 100,53	220,47	9 673,85	301,17	124,82	767,66
2003.	1 272,48	160,45	20 550,49	344,02	135,91	922,40
2004.	1 253,96	141,33	2 242,70	350,75	107,84	810,52
2005.	1 323,50	156,31	5 643,25	407,43	100,52	840,93

Table 6.

In VIBER – similar to ICS – the concentration of payment instructions is showing an increasing trend. While in ICS, the level of concentration is higher in terms of volume of payments, in VIBER, the value of payment turnover is higher. In 2005, the five banks accounting for the largest volume in terms of item number account for 52.6% of total VIBER payment turnover (in ICS this share is 61.8%), concentration by value of payments is 63.9%, which represents a higher level of concentration than ICS (58.9%), and concentration has grown compared to the previous year. This trend is indicated in the following table.

Concentration ratio of VIBER payments %							
Volume				Value			
2002.	2003.	2004.	2005.	2002.	2003.	2004.	2005.
47,90	50,92	52,42	52,57	58,72	57,78	61,72	63,88

Table 7.

Analysing payment instructions according to their individual value, it can be ascertained that the proportional share of payments in the lowest value range (less than HUF 10 million) is increasing continuously (achieving 35.2%), while the proportional share of transactions in the

next value range between HUF 10 million and 5 billion is 3.8%, and is steadily decreasing as compared to previous years. A small growth has been identified in the highest value range (payments over HUF 5 billion). (Chart 16.)

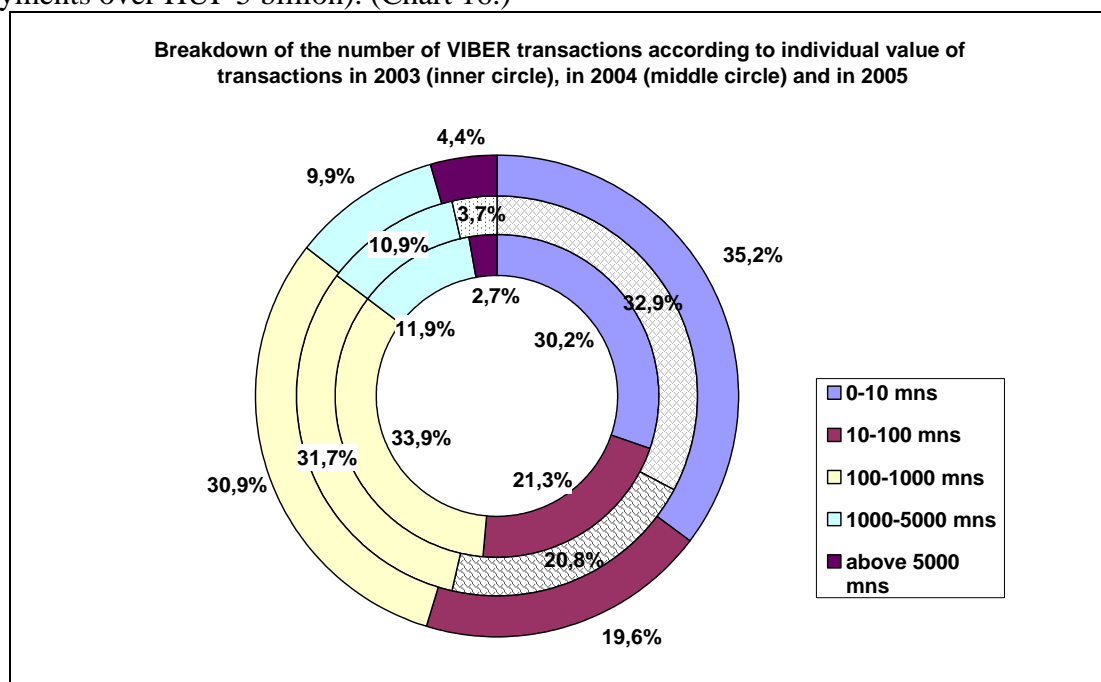


Chart 16.

Payments initiated by customers of the bank numbered 126.5 thousand in 2005, exceeding the previous year's figure by 35%. Over the year as a whole an increasing trend has been identified accompanied by slight fluctuations from month to month. The growth in value of payments is 49.5%. Changes in the monthly value and volume of payments are shown in Chart 17.

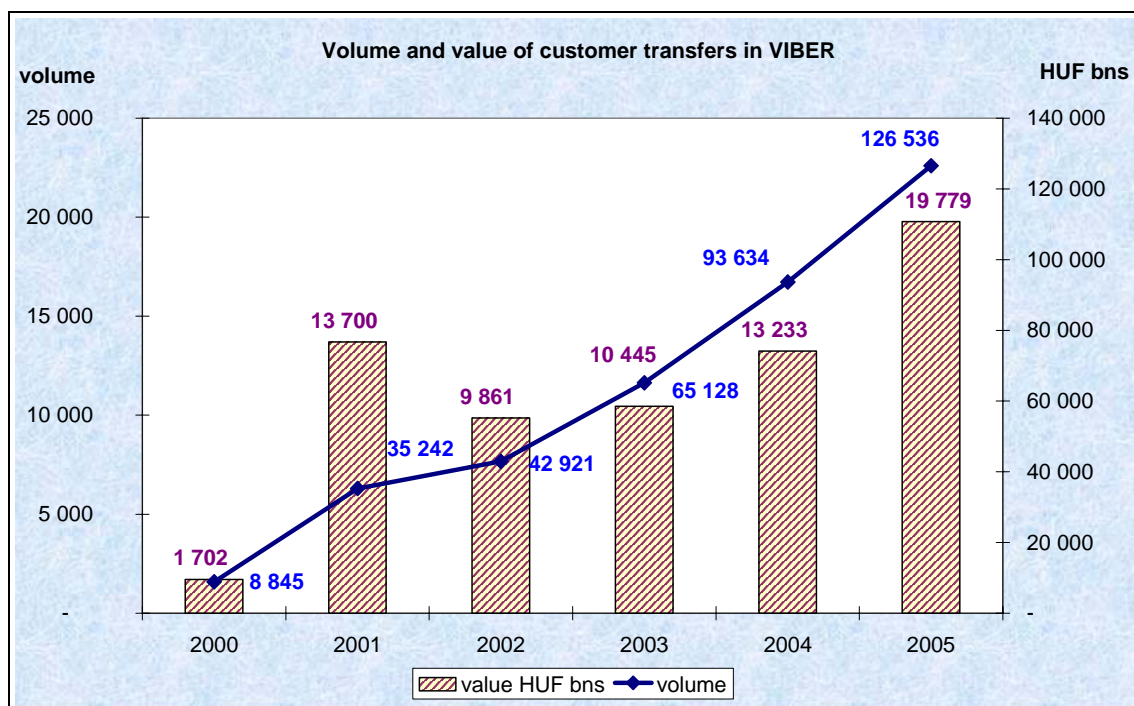


Chart 17.



In 2005, VIBER and ICS processed a total of 600.6 thousand payments with large individual value (over HUF 10 million) and urgent customer transfers, of which 21% (126.5 items) was processed by the real-time settlement system (this proportional share was only 16.6% in 2004). The real-time settlement system processes 41.3% of payment instructions with an individual value over HUF 10 million (in 2004, this share was 34.4%) in terms of value, which shows an improvement both in terms of value and volume (Chart 18.).

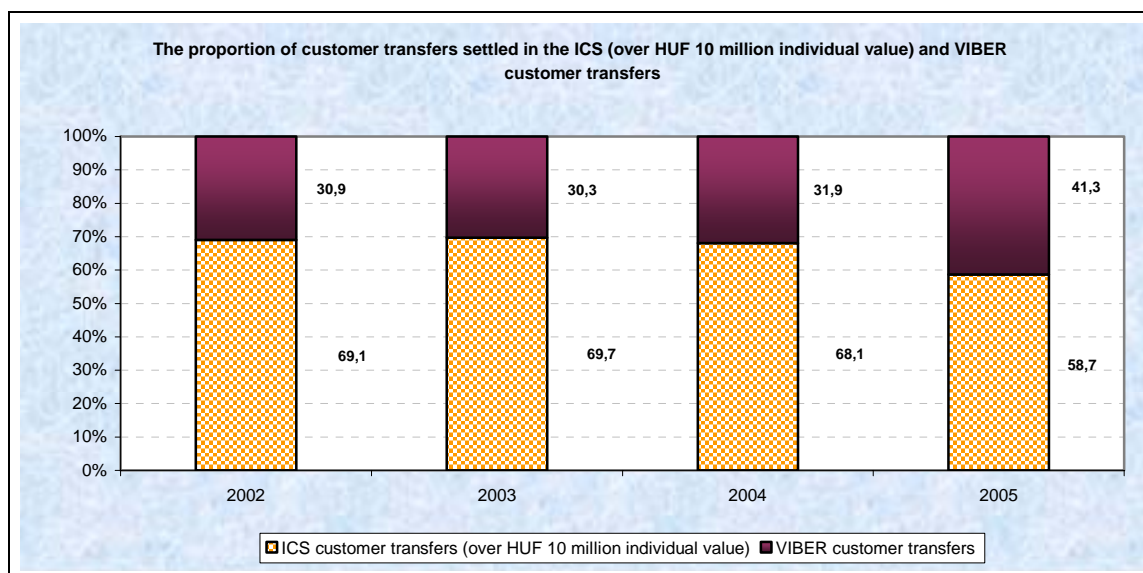


Chart 18.

The balanced distribution of settlement of payment instructions during operating hours continues to be the norm. In terms of processed volume, a greater share of transactions is settled in the first half of the business day (in 2005, 60.7% of payment instructions was settled before 12:00 o'clock, compared to 57.5% in the previous year); the same applies to the value of processed payments, although this share is somewhat lower (50.8% of the value of payments was settled before 12:00 o'clock, compared to 51.4% in 2004.). Compared to 2004, extended operating hours ordered on request by certain VIBER members have decreased significantly (requested by three banks and KELER), which can be traced back to the introduction of stricter regulations on extended operating hours introduced in 2004 (Chart 19.).

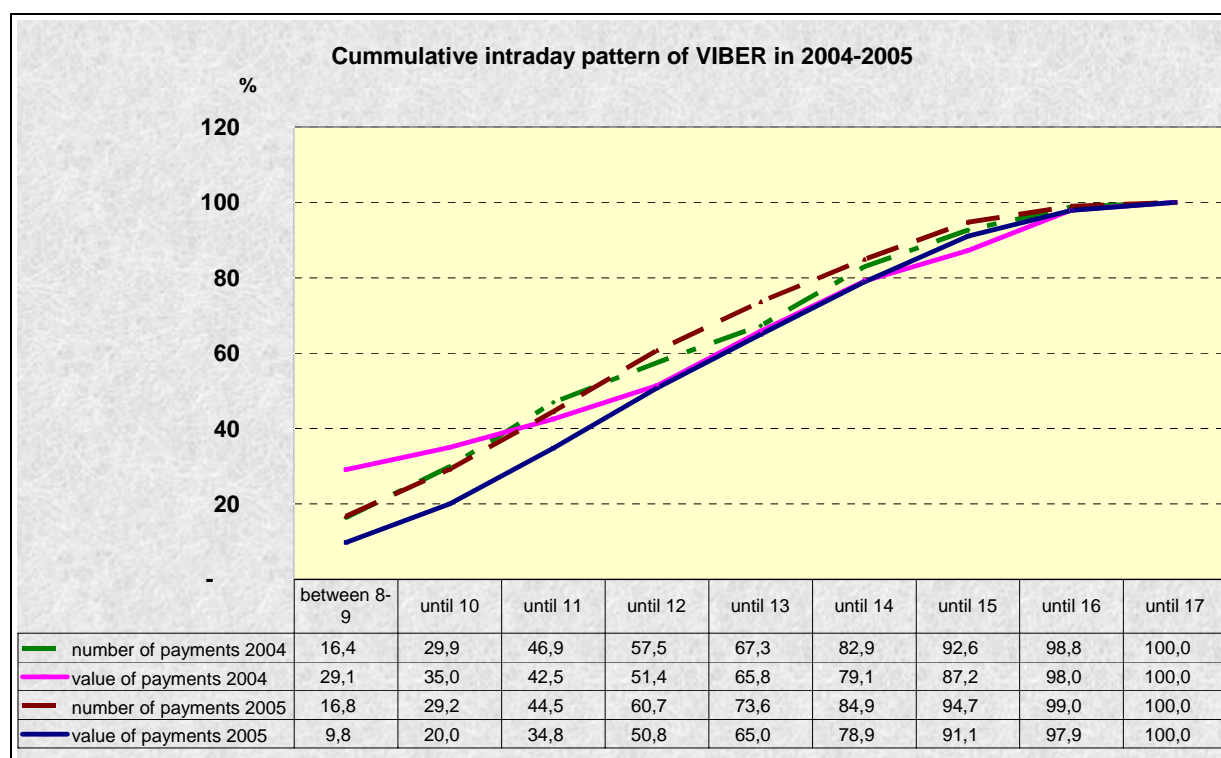


Chart 19.

According to the reports<sup>4</sup> the frequency of queued payments grew by 36.5%, in 2005, banks were notified of queued payments in 3 599 cases. (In 2004, there were 2 637 cases of queued payments). The total amount of queued payments accounted for HUF 71.9 billion, double the figure for the previous year. Funds could not be provided before the end-of-day procedures twice in the case of two banks, and a total of 10 payment instructions in a total value of HUF 65.9 billion were rejected.

Chart 20. shows the changes in the amount and number of queued payments in a year-by-year breakdown for the last six years.

<sup>4</sup> Transactions included in the summary are transactions where the system sent a „queued payment due to insufficient funds” message. (The system notifies the account holder VIBER member by message, if payments are queued due to insufficient funds, or more precisely, if the payment instruction at the top of the list is not processed for 90 seconds. The next time such an advice is issued is when the status of the payment instruction at the top of the list changes – e.g. it is processed, or ranked lower in priority – and there is another queued transaction which is not processed for 90 seconds, this means that other transactions may also have been queued, however no information is available on those transactions. Actual number of queued transactions may have been larger.



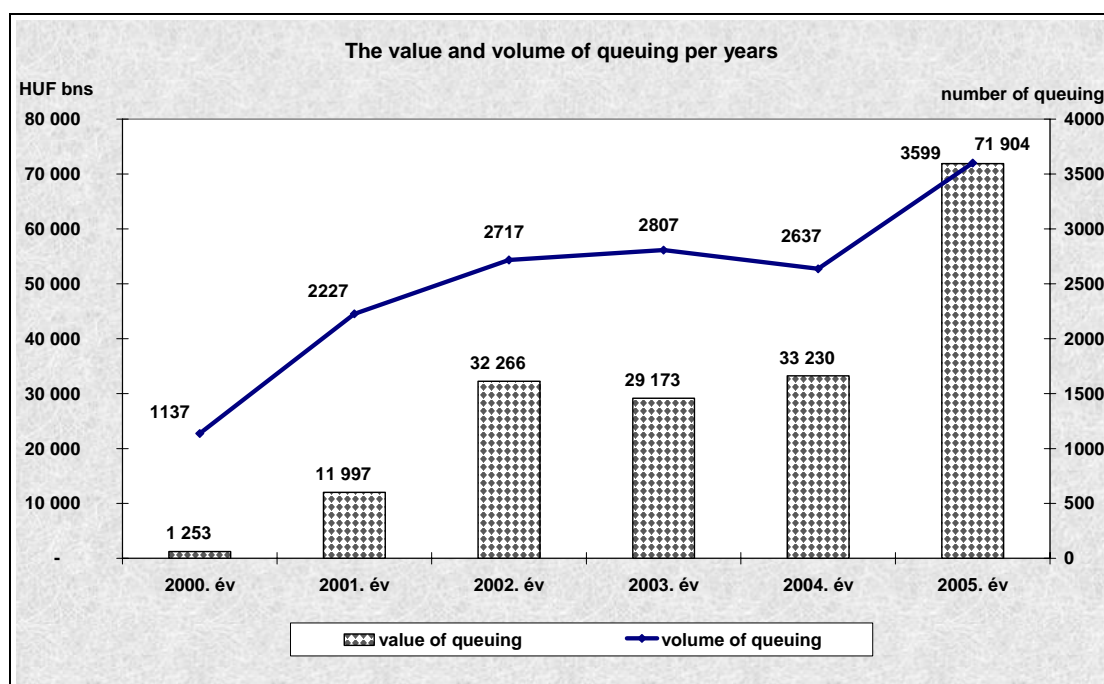


Chart 20.

In 2005, a total of 719 payment instructions were rejected in VIBER, indicating a drop compared to the previous year (820 items in 2004), although this doubled in terms of value: HUF 805.5 billion as compared to HUF 470.2 billion in 2004.

Of the rejected payments, 41.1% were due to incorrect BIC codes, in 38.2% of the cases, the customer initiating the transaction specified an incorrect value date, and in a further 13%, payment instructions were initiated twice. A total of 4.3% of the rejected payments arrived after the cut-off time of the settlement period, which accounts for 136 items annually (18.9% according to the number of rejected payments.).

The availability of VIBER was 99.77% in 2005, which corresponds to the previous year (Chart 21.). Over the year, there were registered 5 cases of late start-up, 4 cases of system disruptions during operating hours (4 and 5, respectively in 2004), the total loss of operating time was 4.4 hours. The longest system disruption occurred in December, the system was not available for more than two hours. In addition, there were cases of partial errors elsewhere in the system (interruptions in the cover checking for cash withdrawal, late settlement of ICS transactions). There were recurring difficulties with late sending of ICS usable funds, and on one occasion, due to a technical error, VIBER end-of-day procedures took place at 20:18 (these cases are not included in the calculated operational availability index). The operational availability index meet the requirements imposed on TARGET. It was not necessary to use the back-up system.

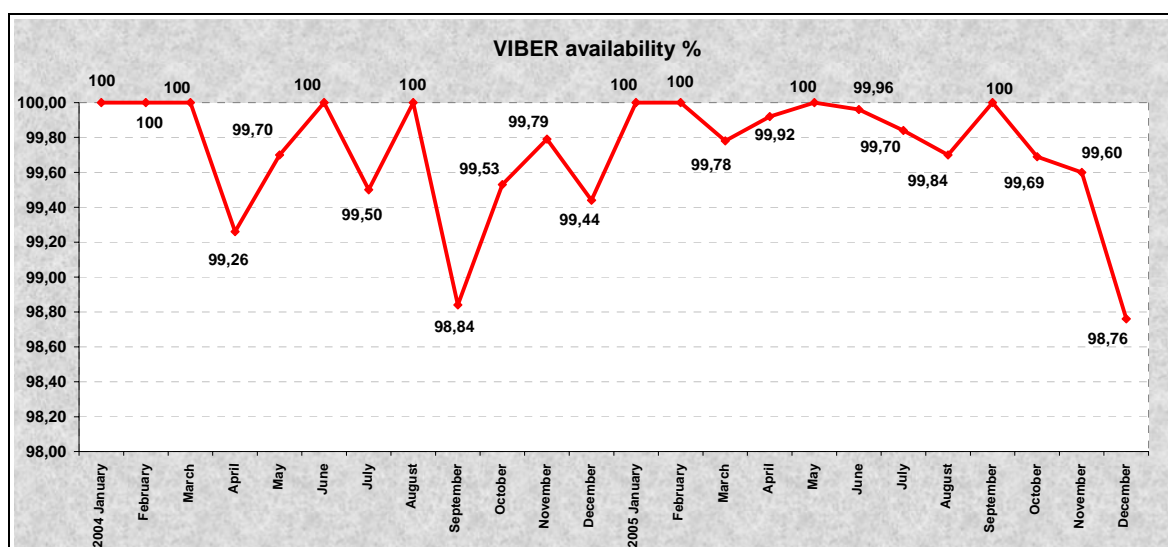


Chart 21.

### 2.2.2. MNB home accounting system

A total of 127.4 thousand payment instructions were booked in the MNB home accounting system in 2005 in a total value of HUF 26.1 billion, which accounts for a 57.1% increase in volume compared to the volume of payment turnover in 2004, and in terms of value, this increase is 1.9 times as high.

While in 2005, 88.2% of transactions were HUF debits of foreign exchange transactions concluded with MNB in terms of volume (109.9 thousand transactions, representing an increase of 37.7% over 2004), the proportional share of deposits was low (1.8%). However, in terms of value, the situation is reversed: deposits placed with MNB account for 93.5% of payments (HUF 24.4 thousand billion, double the value of deposits placed in 2004), single FX transactions of low amounts accounted for only 2.9% (HUF 744 billion as compared to HUF 1 074 billion in the previous year). The proportional share of other transactions is 7.6%, including payment of commissions and interests, spot collection orders; payments by non-VIBER members (interbank and customer transactions) account for barely more than 2% of all payments.

### 2.3 Securities settlements

KELER settles the securities leg of transactions concluded on the Budapest Stock Exchange and Budapest Commodity Exchange as well as OTC transactions, and initiates the cash settlement of securities transactions for credit institutions via VIBER. The combined value of turnover on the abovementioned three markets accounted for HUF 61,9 thousand billion in 2005, exceeding the figure for 2004 by 38.7%. The majority of turnover is accounted for by OTC transactions (HUF 47.8 thousand billion). (Chart 22.).

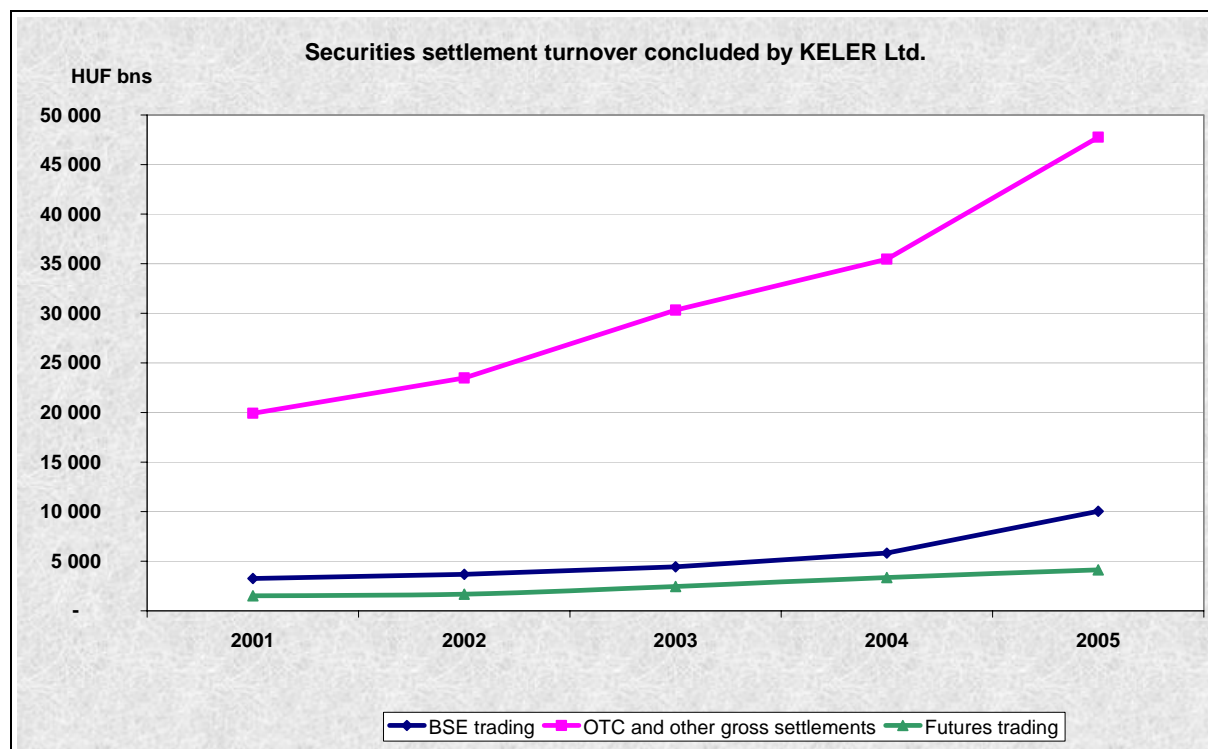


Chart 22.

In 2005 a total number of 1.36 million securities transactions were processed (exceeding the volume of transactions for 2004 by 36.4%), and within this category, the number of transactions concluded on Budapest Stock Exchange were the highest (1.12 million). This number has been steadily increasing since 2003, after the plummeting figures registered in 2000. In terms of volume, the number of gross settlement transactions is much lower (130 and 72 thousand transactions, respectively), although this trend is showing signs of steady increase (Chart 23.).

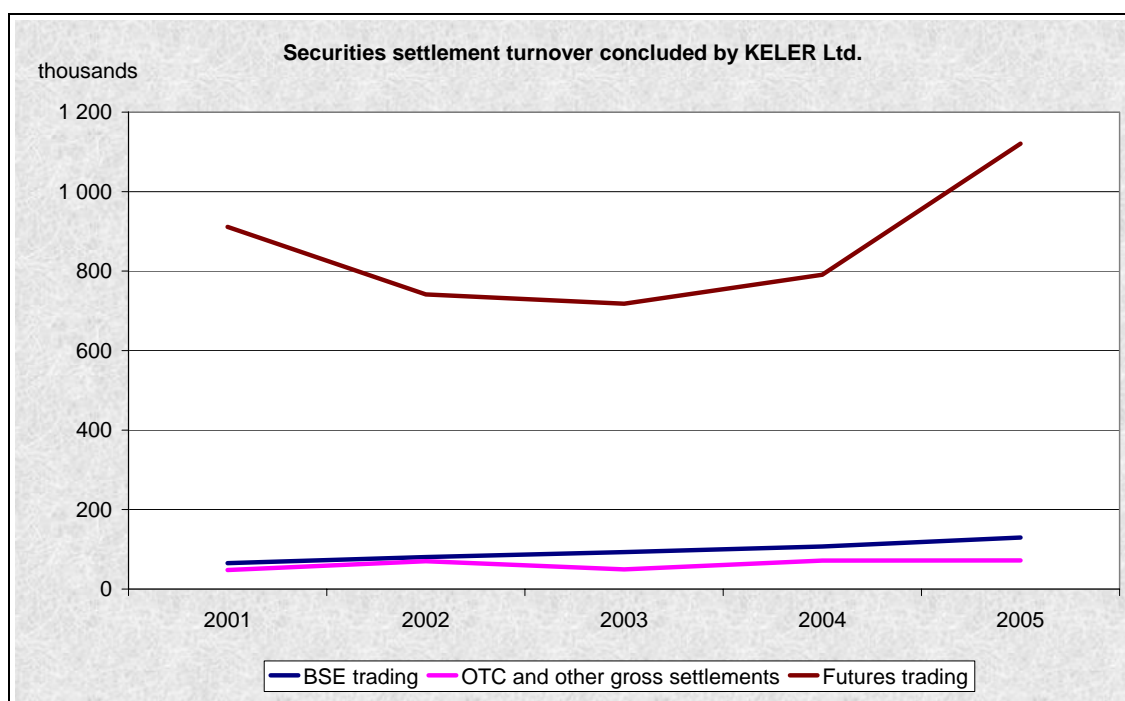


Chart 23.

MNB keeps cash accounts for banks, to which the HUF value of securities transactions are settled via VIBER on the DVP (Delivery Versus Payment) principle. Volume and value of payments is indicated in Chart 24.

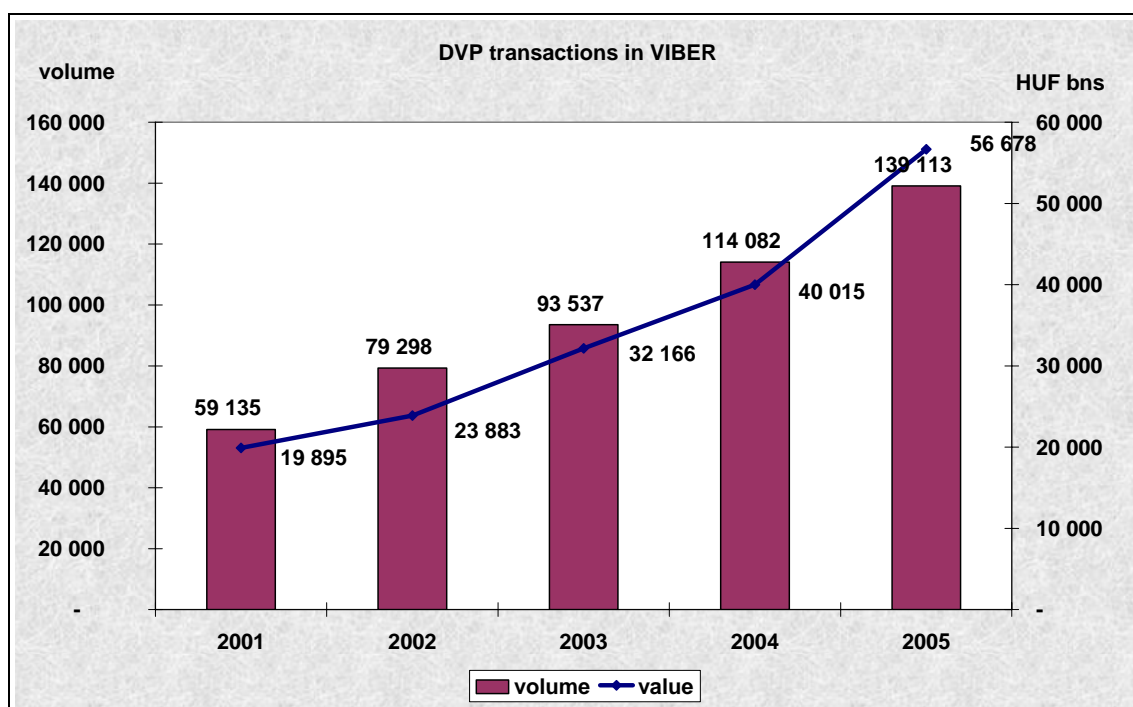


Chart 24.

### 3. Liquidity management in payment systems

Intraday credit line set for banks (supplementing the balance account with a credit limit against collateral) had average daily funds of HUF 371.9 billion in 2005, which is 9.8% less than the figure for 2004. In general, 27-28 banks set up credit lines with 85% of those concentrated at 10 banks. The banks with the most active roles in setting up and adjusting credit lines are mostly the banks that handle the largest volume of VIBER payment turnover (although the Hungarian State Treasury, which accounts for the largest share of ICS payments is not allowed to set up a credit line).

Compared to the previous year, the banks' total daily account balances increased by 10.7%, and amounted to HUF 475 billion in 2005. Using these funds – allocated from account balance and credit line – to process payments, the value of average daily total debits via VIBER and ICS accounts for HUF 2 551 billion, and the average daily volume of payments exceeds daily payments for the previous year by 25.9%. „Ample” liquidity, which is used to characterize the banks' activities in previous years has also changed: the daily volume of payments which is growing year by year (total combined payments of ICS, VIBER and MNB accounting system) are funded with liquidity that expands at a much slower rate. In 2005, the credit line amount dropped in terms of absolute value as compared to the previous year.

Average daily liquidity and volume of payments at the banks are shown next to each other in Chart 25.

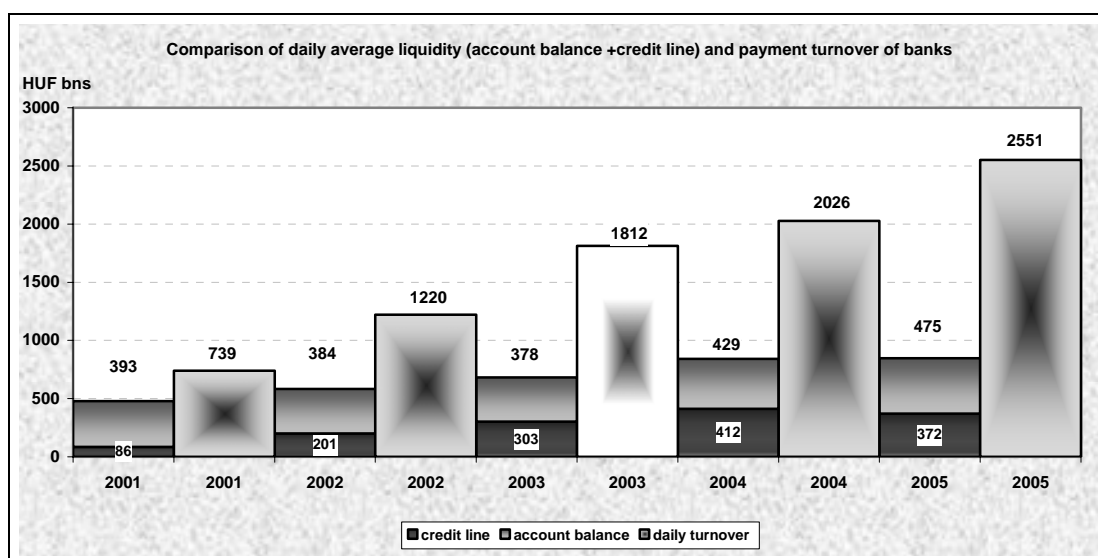


Chart 25.

The average daily payment turnover accounted for 3.02 times of the daily liquidity in 2005. This average figure applies to VIBER members, albeit standard deviation is significant by members: in the month of December, for example, it varied between 0.006 and 459.71<sup>5</sup>. Compared with international data, VIBER liquidity can be said to be exceptionally high. Chart 26. shows how many „rounds” liquid funds make on a daily basis in order to process payments.

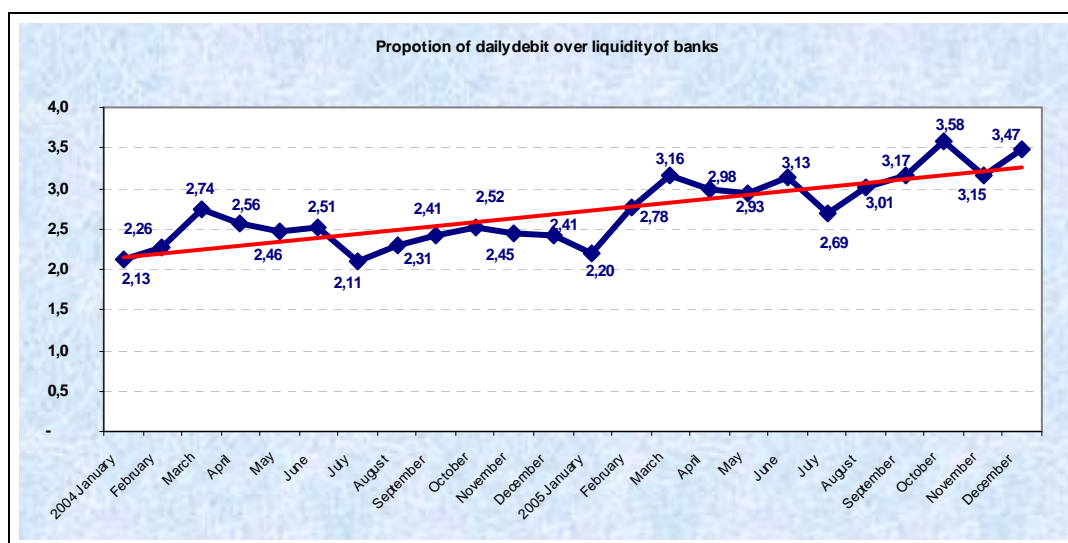


Chart 26.

End-of-day overdrafts (account debit balance) are converted into overnight credits, of which MNB disbursed a cumulated amount of HUF 1 197 billion in 2005, which is only 41% of the end-of-day credits disbursed in 2004. The average daily amount of these credits was HUF 4.7 billion.

Chart 27. indicates the monthly cumulated value of overnight credits raised by banks each month.

<sup>5</sup> The bank with this index witnessed queuing of payments (which is a natural factor of liquidity management), although there were no signs of end-of-day overdrawn balances.

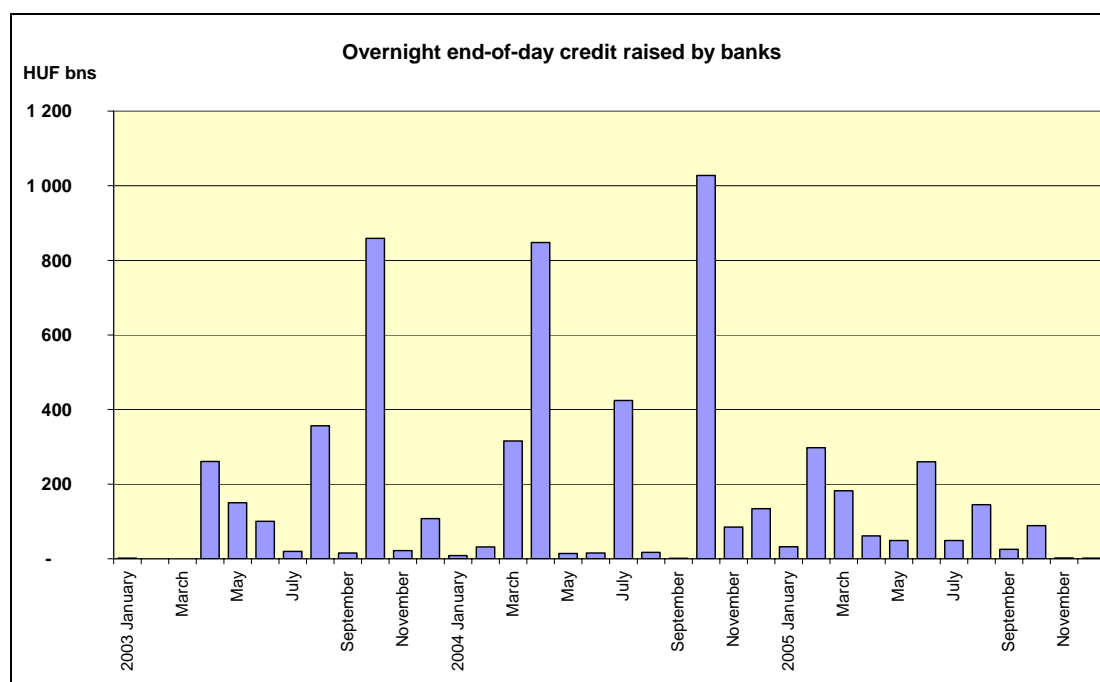


Chart 27.

Simultaneously to the decrease of end-of-day credits by more than half, deposits placed with MNB (HUF 28.3 billion) grew to 2.3 times that of deposits in 2004.

Chart 28. shows deposits placed with MNB in a monthly breakdown, complemented by the end-of-day credit amounts in a monthly breakdown.

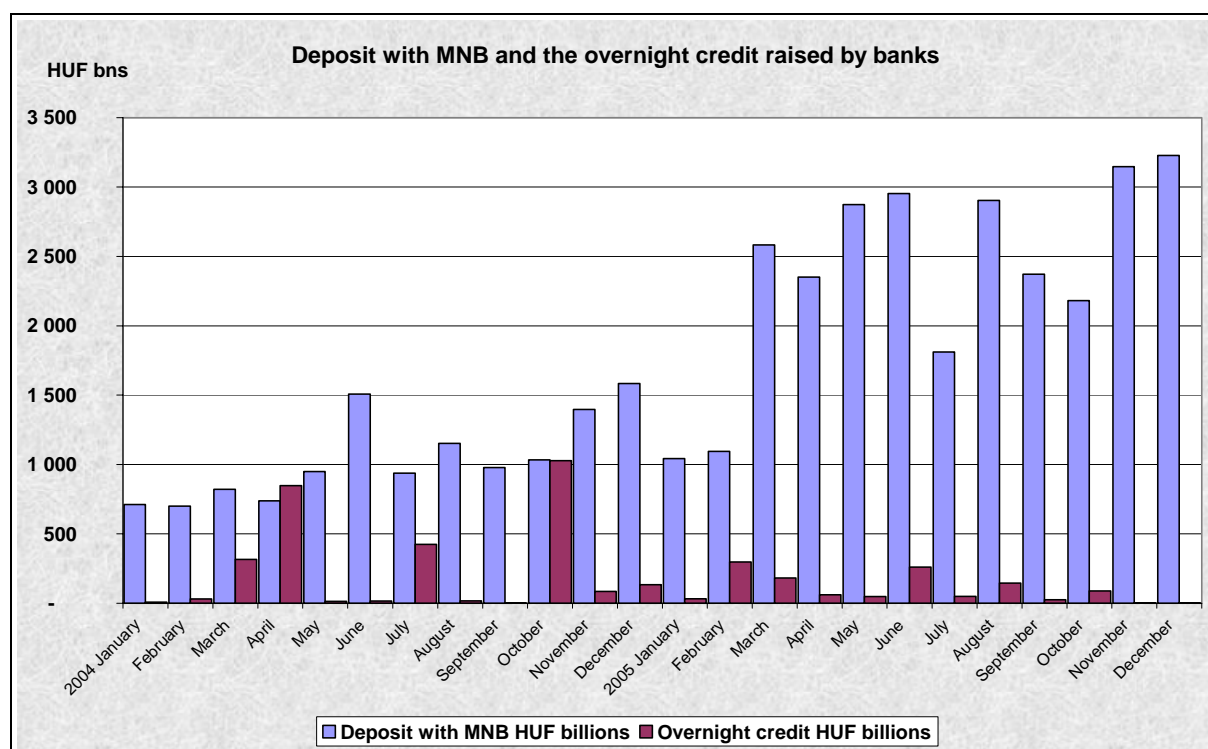


Chart 28.