

Banking system infrastructures for electronic payment and settlement experienced major changes and developments in the review year. The Automated Clearing House System (PAYA) as the main infrastructure for processing individual and multiple payment orders was put into operation in Dey 1388. The legal foundation for Scripless Securities Settlement System (TABA) as the electronic infrastructure for issuance and settlement of various securities and one of the components of the comprehensive and integrated payment system was established in this year. For the facilitation and standardization of interbank transactions of the Iranian banks, Iran bank account number (SHEBA) was created and announced to banks for implementation. Qualitative and quantitative growth of electronic payment instruments, equipment and services, and expansion of the Interbank Information Transfer System (SHETAB) and the Real Time Gross Settlement System (RTGS) as the center for national interbank electronic settlement continued in 1388.

Cash Payment

Notes and Coins

Notes and coins act as cash payment instruments. With inclusion of Central Bank Iran-Checks, total notes and coins issued amounted to Rls. 238.4 trillion. Notes and coins with the public (including CBI Iran-Checks) rose by 21.9 percent from Rls. 157.8 trillion in 1387 year-end to Rls. 192.3 trillion at end-1388. Thus, ratio of notes and coins with the public to GDP (at current prices) increased by 0.7 percentage point to 5.4 percent, compared with preceding year. Furthermore, share of notes and coins with the public in liquidity declined by 0.1 percentage point to 8.2 percent at end-1388, compared with the respective period previous year. Share of notes and coins with the public in money went up by 2 percentage points to 32.0 percent, in comparison with a year earlier. Notes and coins per capita amounted to Rls. 2,611 thousand, up by 20.1 percent compared with the year before.

Notes and Coins with the Public and their Ratio to Macroeconomic Indicators

	Amount (billion rials)	Percentage change (annual)	Share in money (percent)	Share in liquidity (percent)	Ratio to GDP (percent)	Notes and coins per capita (thousand rials)
1383	44,772	15.6	17.7	6.5	3.1	655
1384	50,676	13.2	15.9	5.5	2.7	730
1385	61,452	21.3	14.8	4.8	2.7	872
1386	79,909	30.0	14.9	4.9	2.8	1,117
1387 ¹	157,764	97.4	30.0	8.3	4.7	2,174
1388	192,314	21.9	32.0	8.2	5.4	2,611

¹ Surge in the amount of notes and coins with the public was due to issuance of CBI Iran-Checks to replace check notes issued by banks, which were widely used by the public, and their inclusion in the notes issued by the CBI.

Demand Deposits

Total demand deposits increased by 11.3 percent to Rls. 409.4 trillion compared with preceding year. Share of these deposits in money was 68.0 percent, and in liquidity 17.4 percent. Meanwhile, ratio of demand deposits to GDP was 11.5 percent (at current prices). In the review year, collection and cancellation of banks' check notes continued as well. This reduced net amount of check notes issued by banks¹ (upon deduction of the checks of other banks) from Rls. 34.5 trillion in 1387 year-end to Rls. 14.6 trillion at end-1388. Thus, share of these checks in banks' demand deposits declined from 9.4 percent at end-1387 to 3.6 percent in 1388 year-end. Demand deposits per capita picked up by 9.7 percent to Rls. 5,558 thousand compared with previous year. In 1388, due to rise in the amount of notes and coins with the public and demand deposits, money volume rose by 14.5 percent from Rls. 525.5 trillion in 1387 year-end to Rls. 601.7 trillion at end-1388.

Interbank Clearing House

In 1388, over 107.5 million checks worth Rls. 7,852 trillion were channeled through the interbank clearing houses. The issue and circulation of CBI Iran-Checks as substitutes for check notes issued by banks (including

banks' guaranteed checks and banks' Iran-Checks) in 1387 and the similarity of CBI checks with notes in circulation allayed the need for the settlement of these checks in clearing rooms. Total Iran-Checks channeled through this House, in terms of volume and value, reached 516 thousand and Rls. 565 billion, with each transaction at Rls. 1,095 thousand, on average. In the review year, the number of ordinary checks delivered to the interbank clearing house dipped by 39.5 percent, largely for the collection, cancellation and replacement of check notes issued by banks. Total transactions settled through ordinary checks declined by 3.7 percent to Rls. 7,851.5 trillion. Thus, in 1388, the average amount of each transaction reached Rls. 73,379 thousand, indicating a high rise of 59.3 percent against the respective figure for preceding year (Rls. 46,068 thousand). This mostly resulted from decrease in the volume of banks' checks and their lower value, on average, against other checks, raising average value of transactions settled through ordinary checks. Furthermore, the number of transactions settled through ordinary checks per person was 1.5 and the value of these transactions was Rls. 106,604 thousand. This reveals higher use of ordinary checks for large value payments compared with notes and CBI Iran-Checks.

Demand Deposits and their Ratio to Macroeconomic Indicators

	Amount (billion rials)	Percentage change (annual)	Share in money (percent)	Share in liquidity (percent)	Ratio to GDP (percent)	Demand deposits per capita (thousand rials)
1383	208,043	16.5	82.3	30.3	14.3	3,044
1384	267,244	28.5	84.1	29.0	14.4	3,851
1385	353,093	32.1	85.2	27.5	15.6	5,009
1386	455,798	29.1	85.1	27.8	15.9	6,372
1387	367,718	-19.3	70.0	19.3	10.9	5,066
1388	409,383	11.3	68.0	17.4	11.5	5,558

¹Includes balance of all checks (except personal checks) comprising coded checks, guaranteed checks, traveler's checks, as well as check notes issued by banks.

Total volume and value of transactions processed through the interbank clearing house decreased by 77.7 and 7.3 percent, respectively. This was mainly owing to collection and cancellation of check notes issued by banks. Thus, ratio of total value of transactions processed through the interbank clearing house to GDP (at current prices) reached 2.2 percent in the review year, against the corresponding figure of preceding year (2.5 percent).

Electronic Payment System

Expansion of Electronic Payment Instruments

In the review year, electronic payment instruments, equipment and systems in banks' network expanded with an admissible growth. The number of cards issued by the banking system increased by 45.5 percent to 87.4 million. Among these cards, 67.6 million (77.4 percent) were debit cards, 19.4 million (22.1 percent) prepaid cards (purchase, gift, and e-money cards), and merely 424 thousand (0.5 percent) credit cards. Therefore, the number of cards issued in the country for each individual reached 1.2 at end-1388, indicating a remarkable rise as compared with the corresponding figure for previous year (0.8).

In 1388, the number of ATMs grew by 32.2 percent to 17,133. The number of Pin-pads, electronic devices used in banks for funds transfer through cards, went up by 17.8 percent to 31,853. The number of POSs increased by 50.2 percent to 1,148 thousand. High growth of the number of POSs represents the positive trend of banking system in expanding electronic payments as compared with the rise in the number of ATMs. At end-1388, the ratio of cards issued per ATM, Pin-pad and POS was 5,103, 2,745 and 76, respectively, indicating a rise for ATMs and Pin-pads, and a reduction for POSs.

Electronic Payment Instruments

	Year-end		Percentage change
	1387	1388	
Bank cards (thousand)	60,078	87,425	45.5
ATMs	12,959	17,133	32.2
POSs	763,938	1,147,602	50.2
Pin-pads	27,048	31,853	17.8

Development of Electronic Transactions

In the review year, along with the expansion of electronic payment technology and equipment, banks' electronic transactions rose remarkably. Total number and value

Volume and Value of Transactions Processed through Interbank Clearing House

	Volume (million)		Percentage change	Value (trillion rials)		Percentage change
	1387	1388		1387	1388	
Iran-Checks issued by banks	305.4	0.5	-99.8	319.8	0.6	-99.8
Ordinary checks	176.9	107.0	-39.5	8,149.4	7,851.5	-3.7
Total	482.3	107.5	-77.7	8,469.2	7,852.0	-7.3

Bank Cards

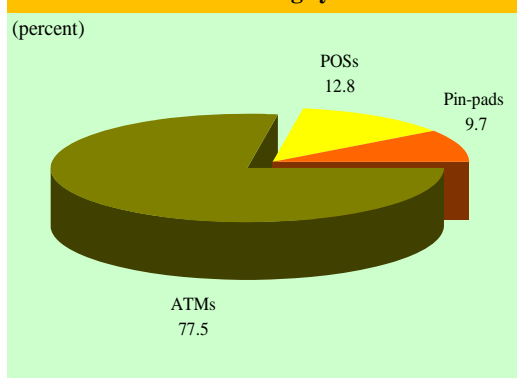
	Volume (thousand)		Growth (percent)	Share (percent)		Change in share (percentage points)
	1387	1388		1387	1388	
Debit cards	48,062	67,633	40.7	80.0	77.4	-2.6
Credit cards	328	424	29.4	0.5	0.5	0.0
Prepaid cards ¹	11,700	19,380	65.6	19.5	22.1	2.6

¹ Including purchase, gift, and e-money cards with a total number of 11.9 thousand in 1387 and 12.2 thousand in 1388

of electronic transactions settled through the banking system rose respectively to 1,658 million and Rls. 1,554,580 billion. The number of transactions processed through ATMs, POSs and Pin-pads during the review year went up by 60.7, 138.7 and 311.1 percent, respectively. Therefore, total settled transactions by means of these instruments, in terms of value, rose respectively 114.9, 174.6 and 131.1 percent. Total transactions settled through each card grew to 19 transactions compared with the respective figure of the previous year (15.4). The number of transactions settled by each ATM reached 74,993, POS 185, and Pin-pad 5,049. Therefore, the average value of each transaction processed through ATMs was Rls. 439 thousand, POSs Rls. 621 thousand and Pin-pads Rls. 5,337 thousand.

In 1388, despite the surge in the volume and value of transactions processed through POSs, the highest share still belonged to ATMs. Share of ATMs in total volume of transactions processed through the banking system was 77.5 percent, and in total value of transactions 36.3 percent, while those of POSs were 12.8 and 8.5 percent, respectively. This reveals the limited use of POSs by the public as compared with ATMs which are mainly used for receipts and payments. It is expected that with the extensive use of credit cards and prepaid cards, as well as availability of POSs throughout the country, the share of transactions through POSs increases and the use of cash and notes decreases in the future.

Figure 15.1. Share of electronic payment instruments in total number of electronic transactions in the banking system in 1388



Pin-pads, which were largely used for electronic transfer of funds between the different accounts as well as banks' branches, held a remarkable share of 55.2 percent in total value of transactions in 1388 year-end. Moreover, the electronic interbank transfer of funds reduced the use of cash and interbank coded checks for funds transfer from one bank to another.

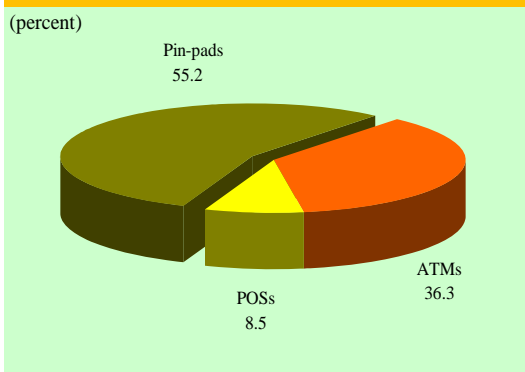
The interbank information transfer network (SHETAB) plays a key role in processing electronic transactions in the banking system. Share of SHETAB in total number of transactions processed through the banking system reached 49.0 percent, down from 56.6 percent registered last year. This was largely due to expansion of electronic payment instruments as well as the rise in public willingness to use various electronic banking services (internet banking, telephone banking,

Volume and Value of Electronic Transactions Processed through the Banking System

	Volume (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	1387	1388		1387	1388	
Total electronic transactions	928	1,658	78.7	682	1,555	127.9
ATMs	800	1,285	60.7	263	565	114.9
POSs	89	212	138.7	48	132	174.6
Pin-pads	39	161	311.1	371	858	131.1

etc.). Total number of transactions processed through SHETAB via ATMs and POSs grew by respectively 38.2 and 191.3 percent to over 647 million and 164 million transactions. Moreover, share of POSs in total interbank transactions reached 20.3 percent, showing a favorable increase compared with 10.8 percent of the year before. Total volume of interbank transactions processed through SHETAB reached 811.9 million, and net value of these transactions rose by 128.4 percent to Rls. 73.6 trillion.

Figure 15.2. Share of electronic payment instruments in total value of electronic transactions in the banking system in 1388



Electronic Settlement System

SAHAB

The low value transfer system (SAHAB) helped transfer of more than 28.7 million transactions through ATMs, indicating a rise of 244.5 percent compared with previous year. Moreover, SAHAB processed about 679 thousand transactions through Pin-pads. The number of transactions processed through SAHAB via the internet increased 79.6 times compared with preceding year. Shares of ATMs, Pin-pads and Internet in total transactions processed through SAHAB, in terms of volume, reached 96.5, 2.3 and 1.2 percent, and in terms of value, 85.8, 13.1 and 1.1 percent. Thus, in 1388, 29.8 million transactions worth Rls. 136.4 trillion were processed through SAHAB, indicating a significant growth compared with last year. It is expected that by the extensive use of this service in the banking network, the electronic means of payment develops, and the alternative means of transactions such as the coded checks, Iran-Checks and notes recede from the Iranian payment system in the future.

Volume and Net Value of Transactions Processed through SHETAB

	Volume (thousand)		Growth (percent)	Net value (billion rials)		Growth (percent)
	1387	1388		1387	1388	
Total transactions through SHETAB¹	524,879	811,937	54.7	32,224	73,590	128.4
ATMs	468,427	647,493	38.2	0
POSs	56,452	164,444	191.3	0

¹Including interbank electronic transactions processed through SAHAB

Volume and Value of Transactions Processed through SAHAB

	Volume (thousand)		Growth (percent)	Value (billion rials)		Growth (percent)
	1387	1388		1387	1388	
Total transactions through SAHAB	8,551	29,785	248.3	30,417	136,435	348.5
ATMs	8,346	28,748	244.5	26,655	117,011	239.0
Pin-pads	201	679	238.2	3,746	17,901	377.9
Internet	4	358	⊞	16	1,523	⊞

SATNA

In 1388, CBI and banks' efforts in development and expansion of the customer to customer real time electronic payment services through RTGS (Real Time Gross Settlement) system raised the use of such services 19.1 times in terms of volume and 9.0 times in terms of value. This rising trend was also significant for bank to bank transactions. The highest share in total transactions processed through SATNA, in terms of volume, belonged to customer to customer transactions (93.8 percent), and in terms of value, to clearing settlement systems (42.8 percent). Thus, total number of transactions processed through SATNA, in terms of volume and value, increased respectively 17.7 and 2.8 times to 4.7 million and Rls. 4,233 trillion, compared with the previous year.

Total Value of Transactions

Review of the total value of transactions in 1388 as compared with 1387 reveals a mere rise of 4.3 percent in real terms (including the CPI), despite 15.5 percent increase in the nominal value of transactions.

Issuance of CBI Iran-Checks and their replacement for those issued by banks as of 1387 reduced the gross value of transactions through banks' Iran-Checks to Rls. 0.6 trillion in the interbank clearing house. Moreover,

collection and cancellation of checks issued by banks had a negative effect on the gross value of transactions through ordinary checks (including bank checks). Thus, total value of transactions through ordinary checks processed in the interbank clearing house declined by 3.7 percent in 1388. This partly resulted from collection and cancellation of checks issued by banks and their replacement with CBI Iran-Checks, indicating Central Bank quick action in this respect which reduced total transactions through the interbank clearing house. Conversely, issuance of CBI Iran-Checks raised the volume of notes and coins with the public which is not calculated due to the unlimited circulation of these checks in cash transactions.

Electronic transactions went up in the review year. Therefore, share of electronic transactions in total value increased by 17.9 percentage points, and the volume of transactions through Iran-Checks issued by banks as well as ordinary checks declined by the same figure. Despite the meager rise in the value of transactions through ordinary checks, the highest share in transactions (73.1 percent) still belonged to these checks. The value of transactions through POSs rose 174.6 percent in 1388, holding a mere 1.2 percent share in total transactions, however. Meanwhile, share of ATMs in total transactions picked up by 2.4 percentage points

Volume and Value of Transactions Processed through SATNA

	Volume		Growth (percent)	Value (trillion rials)		Growth (percent)
	1387	1388		1387	1388	
Bank to bank	20,408	258,701	⊞	391	1,087	177.9
Customer to customer	228,646	4,375,838	⊞	148	1,333	⊞
Clearing settlement systems (SHETAB, Interbank Clearing House, and PAYA)	13,983	29,049	107.7	970	1,813	87.0
Total¹	263,037	4,663,588	⊞	1,509	4,233	180.5

¹ Excluding intraday liquidity facility and settlement by the CBI

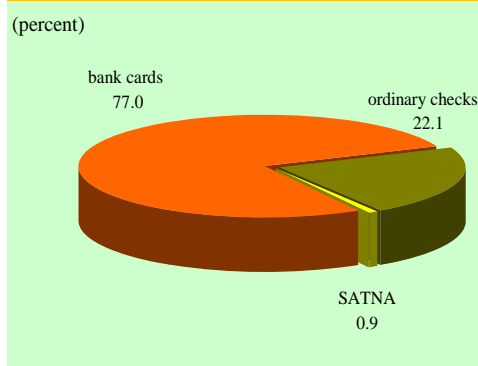
from 2.8 percent in 1387 to 5.3 percent in 1388. Of note, total value of customer to customer transactions through SATNA, up by almost 800.0 percent compared with last year, had the highest share in raising total value of transactions (12.7 percent). Thus, share of these transactions in total, in terms of value, went up by 10.8 percentage points from 1.6 percent in 1387 to 12.4 percent in 1388.

Share of Non-cash Payment Instruments

Regarding development of electronic banking and expansion of electronic payment instruments in line with reduction of transactions through ordinary checks (including bank checks) settled in the interbank clearing house due to replacement of CBI Iran-Checks for bank checks, the higher share in total non-cash transactions, in terms of volume, belonged to bank cards by 77.0 percent as compared with that of ordinary checks¹ by 22.1 percent. The average value per transaction settled through bank cards reached Rls. 2,655 thousand, holding 9.7 percent share in total value of non-cash transactions. Meanwhile, the high average value per transaction settled through ordinary checks by Rls. 73,368 thousand brought about the 77.2 percent share of these checks in total value of non-cash transactions.

With regard to adoption of supportive policies, volume of transactions through SATNA rose sharply in 1388, accounting for 0.9 percent of total non-cash transactions compared with 0.1 percent in the year before. As transactions through SATNA were mostly in large-value funds, value of transactions through this system, with a high average value per transaction by Rls. 304,683 thousand, held 13.1 percent share in total non-cash transactions. It is expected that by the rise in public awareness, the use of SATNA expands in the future, constituting a higher share in non-cash transactions, in terms of volume and value.

Figure 15.3. Share of non-cash payment instruments in total number of non-cash transactions in 1388



Total Value of Transactions Processed through the Banking System

	Value (trillion rials)		Growth (percent)	Share in growth (percentage points)	Share in total value of transactions (percent)		Change in share (percentage points)
	1387	1388			1387	1388	
Iran-Checks issued by banks	320	0.6	-99.8	-3.4	3.4	0.0	-3.4
Ordinary checks	8,149	7,851	-3.7	-3.2	87.6	73.1	-14.5
ATMs	263	565	114.9	3.2	2.8	5.3	2.4
POSS	48	132	174.6	0.9	0.5	1.2	0.7
Pin-pads	371	858	131.1	5.2	4.0	8.0	4.0
SATNA (customer to customer)	148	1,333	800.0	12.7	1.6	12.4	10.8
Total transactions (nominal)	9,300	10,740	15.5	15.5	100.0	100.0	0.0
Total transactions (real)¹	5,073	5,291	4.3				

¹ CPI is used for the calculation of total transactions in real terms.

¹ Including volume and value of ordinary checks channeled only through the Interbank Clearing House

Share of Non-cash Payment Instruments in Total Volume and Value of Non-cash Transactions

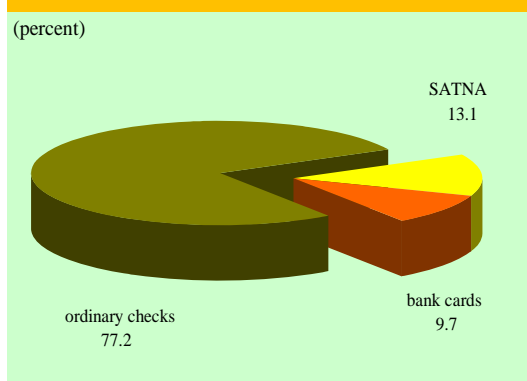
	Share in total volume (percent)		Share in total value (percent)		Average value per transaction (thousand rials)	
	1387	1388	1387	1388	1387	1388
Bank cards ¹	41.9	77.0	4.8	9.7	3,277	2,655
Ordinary checks ²	58.0	22.1	93.5	77.2	46,061	73,368
SATNA ³	0.1	0.9	1.7	13.1	648,732	304,683
Total	100.0	100.0	100.0	100.0	28,568	21,009

¹Including transactions processed through POSs and Pin-pads, and excluding ATMs. Non-cash payment transactions processed through ATMs (such as payment of utility bills and cash transfers whose breakdown is not available) are excluded from this calculation.

²Including only ordinary checks channeled through the Interbank Clearing House

³Including only customer to customer transactions

Figure 15.4. Share of non-cash payment instruments in total value of non-cash transactions in 1388



4th Five-Year Development Plan

According to paragraph (c) of Article 10, the 4th FYDP Law, the government was obliged to launch the electronic banking system, and put electronic money as well as electronic banking services for all banks and clients into operation at both national and international levels.

As of 1383, upon the strategic approach adopted by the Central Bank and the banking

system, the development of payment system and the electronic banking was officially put on top of the agenda for the said entities. The stated approach in line with the provisions stipulated in the 4th FYDP Law as well as the by-laws on expansion of the electronic money system and on electronic banking system accelerated the establishment of the related infrastructures and electronic payment and banking services and equipment. Before the end of 4th Plan, the required infrastructures for the comprehensive system of interbank payments as well as exchange, clearing and settlement of funds were created. Moreover, standardization of electronic payment services and banking operations paved the way for the introduction of innovative methods and the development of new banking services within a comprehensive and integrated framework.

Notable measures adopted during the 4th Plan period comprised the following:

- The development of electronic retail payment system;
- Swift advancement of electronic banking services;

- Harmonization, transparency, and standardization in banks electronic payment systems, and the CBI supervision of the national integrated payment system;
 - Significant improvements in electronic payment instruments, equipment and technology;
 - Widespread expansion of consumer electronic banking culture;
 - Harmonization and compliance with the international payment and settlement standards;
 - Delineation, establishment, and operation of SATNA as the core component of transaction settlement infrastructure;
 - Development of SAHAB for interbank small-value transactions;
 - Diversification of electronic banking and payment products and services;
 - Standardization of methods and techniques as well as approval of new rules and regulations;
 - Development of technical and executive supervisory instruments, and strengthening of payment system oversight;
 - Introduction of PAYA in 1388 for individual retail payments as well as multiple wholesale payments;
 - Standardization of bank accounts under Iran Bank Account Number (SHEBA);
 - Paving the way for creation of a comprehensive oversight system for bank cards as of 1388;
 - Qualitative advancement of national electronic payments;
 - Reform and oversight of banks' payment systems performance.
- Over the course of 4th FYDP, the progress of electronic payment system in terms of instruments and equipment in the inter-bank network was indeed exemplary. The number of bank cards, POSs and Pin-pads grew sharply in 1384, and ATMs had the highest rise in 1385. During the 4th Plan, the number of bank cards went up by 63.5 percent, POSs 141.5 percent, Pin-pads 34.0 percent, and ATMs 43.8 percent, on average annual basis.
- The ratios of bank cards to population, bank cards to ATMs and bank cards to POSs changed from respectively 0.1, 2,647 and 416 at end-1383 to 1.2, 5,103 and 76 in 1388 year-end. Furthermore, the ratio of population to ATMs and POSs declined from 23,863 and 3,748 at end-1383 to 4,299 and 64 in 1388 year-end, respectively. Thus, national indicators relating to bank card issuance, and installation of electronic payment instruments and equipment improved significantly during the 4th Plan.

Electronic Payment Instruments

	1384	1385	1386	1387	1388	Percentage change					Average annual growth during the 4 th FYDP
						1384	1385	1386	1387	1388	
Bank cards (thousand)	13,512	23,438	38,593	60,078	87,425	78.3	73.5	64.7	55.7	45.5	63.5
ATMs	4,458	7,468	9,917	12,959	17,133	55.7	67.5	32.8	30.7	32.2	43.8
POSs	68,532	192,765	427,082	763,938	1,147,602	275.8	181.3	121.6	78.9	50.2	141.5
Pin-pads	11,268	15,692	21,707	27,048	31,853	49.8	39.3	38.3	24.6	17.8	34.0

Chapter 15 PAYMENT SYSTEM

Over the period of the 4th Plan, the number and value of electronic transactions rose remarkably. Therefore, total transactions processed through the banking system in 1388 picked up 2.4 and 3.6 times in terms of volume and value, respectively, as compared with 1386. In the review year, total transactions

processed through the banking system via ATMs, POSs and Pin-pads increased by respectively 2.1, 6.3 and 5.0 times, in terms of volume, and 3.8, 6.2 and 3.2 times, in terms of value, compared with 1386. This is indicative of the extensive use of banks' electronic payment instruments by the public.

Total Volume of Electronic Transactions Processed through the Banking System

	Volume (million)					Growth (percent)		
	1385 (final nine months)	1386 (final nine months)	1386	1387	1388	1386 (final nine months)	1387	1388
Electronic transactions through the banking system	361	535	678	928	1,658	48.3	36.8	78.7
ATMs	335	480	613	800	1,285	43.3	30.5	60.7
POSs	10	29	34	89	212	178.2	162.9	138.7
Pin-pads	15	26	32	39	161	67.8	22.5	311.1

Total Value of Electronic Transactions Processed through the Banking System

	Value (billion rials)					Growth (percent)		
	1385 (final nine months)	1386 (final nine months)	1386 ¹	1387	1388	1386 (final nine months)	1387	1388
Electronic transactions through the banking system	212,573	383,453	435,513	682,133	1,554,615	80.4	56.6	127.9
ATMs	77,673	129,952	149,242	262,733	564,636	67.3	76.0	114.9
POSs	6,783	19,264	21,143	47,975	131,739	184.0	126.9	174.6
Pin-pads	128,117	234,237	265,127	371,425	858,240	82.8	40.1	131.1

¹ Due to lack of data on the volume and value of electronic transactions processed through the banking system in Esfand 1385, figures for 1386 are used as the benchmark for comparison.