

In 1391, in line with the development of banks electronic payment and application services, the Central Bank paved the way for realization of data-based offsite supervision and oversight of the banks' operations in payment system by the introduction and implementation of different systems such as retail funds transfer, standardization of checks and their issuance process, establishment of the Interbank Financial Telecommunication (SEPAM) as an infrastructure in providing secure financial messaging services, putting into operation the system of Interbank Financial Transactions in conformity with the SWIFT standards, making the system of participation papers' electronic sales operational, full operation of card-based electronic payment system, and creation of the required infrastructures for the centralized payments operations by the government. Furthermore, to have a secured and uninterrupted electronic payment system, the strategic guideline document on Banks'

Network Security and Emergency Response System (KASHEF) was made operational, aimed at creating a trustworthy and specialized center for coordination of response and detection of system vulnerabilities as well as information analysis.

### Cash Payment

#### *Notes and Coins*

Banknotes and coins act as direct instruments for cash payment. With the inclusion of Central Bank Iran-Checks, total notes and coins issued in 1391 came to Rls. 390.4 trillion. Notes and coins with the public (including CBI Iran-Checks) increased by 25.4 percent from Rls. 263.2 trillion in 1390 year-end to Rls. 330.2 trillion at end-1391. Thus, the ratio of notes and coins with the public to GDP (at current prices) increased by 0.5 percentage point compared with 1390, to reach 4.7 percent.

**Table 14.1. Notes and Coins with the Public and their Ratio to Macroeconomic Indicators**

	Value (billion rials)	Percentage change (annual)	Share in money (percent)	Share in liquidity (percent)	Ratio to GDP (percent)	Notes and coins per capita (thousand rials)
1389	225,155	17.1	29.7	7.6	4.7	3,036
1390	263,209	16.9	29.3	7.4	4.2	3,502
1391	330,164	25.4	29.0	7.2	4.7	4,342

**Sight Deposits**

Total sight deposits reached Rls. 806.6 trillion at end-1391, showing 27.1 percent growth compared with the year before. Shares of sight deposits in money and liquidity were 71.0 and 17.5 percent, respectively, and their ratio to GDP was 11.4 percent (at current prices). Moreover, sight deposits per capita reached Rls. 10,607 thousand, showing 25.7 percent increase compared with the preceding year. Considering the rise in the value of notes and coins with the public as well as sight deposits, total money supply (including notes and coins with the public plus sight deposits) increased by 26.6 percent from Rls. 897.6 trillion at end-1390 to Rls. 1,136.7 trillion in 1391 year-end.

Interbank Clearing House, in terms of volume and value, amounted to about 600, worth merely Rls. 0.6 billion, with each transaction at Rls. 1,104 thousand, on average.

In 1391, the number of ordinary checks, comprising coded checks and personal checks delivered to the Interbank Clearing House, rose 0.6 percent. Total transactions settled through ordinary checks, in terms of value, grew by 20.4 percent to Rls. 14,718.7 trillion. Therefore, the average value of each transaction of ordinary checks grew by 19.7 percent to Rls. 124,678 thousand compared with the corresponding figure for the previous year (Rls. 104,155 thousand).

**Interbank Clearing House**

A total of 118.1 million checks worth Rls. 14,718.7 trillion were channeled through the Interbank Clearing House in 1391. Total banks' Iran-Checks channeled through the

Total volume and value of transactions processed through the Interbank Clearing House increased by 0.6 and 20.4 percent, respectively, in 1391. The ratio of total value of transactions processed through the Interbank Clearing House to GDP (at current prices) increased from 2.0 in 1390 to 2.1 in 1391.

**Table 14.2. Sight Deposits and their Ratio to Macroeconomic Indicators**

	Value (billion rials)	Percentage change (annual)	Share in money (percent)	Share in liquidity (percent)	Ratio to GDP (percent)	Sight deposits per capita (thousand rials)
1389	533,561	30.3	70.3	18.1	11.3	7,195
1390	634,363	18.9	70.7	17.9	10.2	8,441
1391	806,554	27.1	71.0	17.5	11.4	10,607

**Table 14.3. Volume and Value of Transactions Processed through Interbank Clearing House**

	Volume (million)		Percentage change	Value (trillion rials)		Percentage change
	1390	1391		1390	1391	
Iran-Checks issued by banks	0.003	0.0006	-79.0	0.003	0.0006	-79.4
Ordinary checks	117.4	118.1	0.6	12,225.2	14,718.7	20.4
<b>Total</b>	<b>117.4</b>	<b>118.1</b>	<b>0.6</b>	<b>12,225.2</b>	<b>14,718.7</b>	<b>20.4</b>

## Electronic Payment System

### Expansion of Electronic Payment Instruments

In 1391, electronic payment instruments expanded with an admissible growth. The number of cards issued in the banking sector grew by 29.7 percent to 225.8 million. Among these cards, 154.9 million were debit cards (68.6 percent), 69.1 million were prepaid cards in the form of purchase and gift cards (30.6 percent), and merely 1.8 million were credit cards (0.8 percent). The number of cards issued in the country for each individual went up from 2.3 in 1390 to 3.0 in 1391 year-end.

The number of ATMs increased by 13.3 percent to 30,173 in 1391. The number of PIN pads, electronic devices used in debit, credit, or smart card-based transactions, rose 0.6 percent to 53,117. The number of POSs surged by 23.1 percent to 2,689 thousand which, compared with the rise in the number of ATMs, signifies the positive trend of the banking sector in expanding electronic payments.

### Development of Electronic Transactions

In 1391, along with the expansion of electronic payments technologies, banks' electronic transactions increased significantly. Total number and value of electronic transactions settled through the banking sector reached 6,544 million and Rls. 13,421 trillion, respectively. The number of electronic transactions processed through ATMs and POSs during this year grew by 40.4 and 80.5 percent, respectively. Accordingly, the value of electronic transactions processed through ATMs and POSs increased by respectively 101.6 and 144.1 percent. During 1391, the number and value of transactions processed through PIN pads increased by 9.7 and 58.1 percent, respectively.

**Table 14.6. Number of Electronic Payment Instruments**

	Year-end		Percentage change
	1390	1391	
Bank cards (thousand)	174,025	225,764	29.7
ATM	26,626	30,173	13.3
POS	2,184,237	2,689,253	23.1
PIN pad	52,782	53,117	0.6

**Table 14.4. Bank Cards**

	Number (thousand)		Growth (percent)	Share (percent)		Change in share (percentage points)
	1390	1391		1390	1391	
Debit cards	122,563	154,862	26.4	70.4	68.6	-1.8
Credit cards	1,570	1,759	12.1	0.9	0.8	-0.1
Prepaid cards	49,893	69,143	38.6	28.7	30.6	1.9

**Table 14.5. Volume and Value of Electronic Transactions Processed through the Banking Sector**

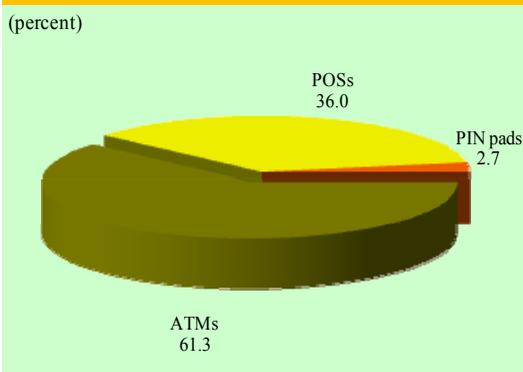
	Volume (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	1390	1391		1390	1391	
<b>Total electronic transactions</b>	<b>4,324</b>	<b>6,544</b>	<b>51.3</b>	<b>6,554</b>	<b>13,421</b>	<b>104.8</b>
ATM	2,855	4,010	40.4	2,443	4,924	101.6
POS	1,305	2,355	80.5	2,324	5,673	144.1
PIN pad	164	180	9.7	1,786	2,824	58.1

Despite the surge in the volume and value of transactions processed through POSs in this year, ATMs still had the highest share in total number of electronic transactions. Share of ATMs in total volume of electronic transactions processed through the banking sector was 61.3 percent and in total value, 36.7 percent. On the other hand, the share of POSs in total volume of electronic transactions was 36.0 percent and in total value, 42.3 percent. This indicates the increased use of POSs compared with the corresponding figures for the year before (30.2 and 35.5 percent, respectively), which shows growing public tendency towards the wider use of POSs for daily transactions. It is expected that with the extensive use of credit cards and prepaid cards, as well as more availability of POSs throughout the country, the share of electronic transactions through POSs will increase and the use of cash will decrease in the future. Furthermore, PIN pads enjoyed a share of 21.0 percent in total value of electronic transactions in 1391.

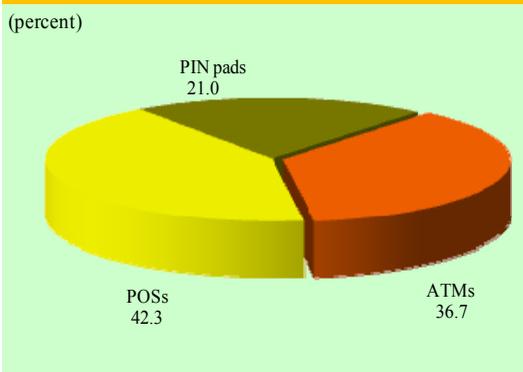
The Interbank Information Transfer Network (SHETAB) plays a key role in processing electronic transactions in the banking sector. The share of SHETAB center in the total volume and value of electronic transactions processed through the banking sector was 71.1 and 57.2 percent, respectively, indicating a noticeable rise when compared with the corresponding figures of the year before (60.7 and 51.1 percent, respectively). Expansion of electronic payment instruments and the development of electronic banking services

such as online (internet) banking and telephone banking are among factors contributing to the increase in the share of SHETAB system in interbank electronic transactions.

**Figure 14.1. Share of electronic payment instruments in total number of electronic transactions in the banking sector in 1391**



**Figure 14.2. Share of electronic payment instruments in total value of electronic transactions in the banking sector in 1391**



**Table 14.7. Volume and Value of Transactions Processed through SHETAB**

	Volume (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	1390	1391		1390	1391	
<b>Total transactions through SHETAB<sup>1</sup></b>	<b>2,626</b>	<b>4,655</b>	<b>77.3</b>	<b>3,346</b>	<b>7,675</b>	<b>129.4</b>
ATM	1,583	2,211	39.7	1,342	2,286	70.3
POS	943	2,067	119.1	1,801	4,843	168.8
Others (landlines, cell phones, internet, kiosks, and branches)	100	377	278.7	203	546	169.6

<sup>1</sup> Includes interbank electronic transactions processed through SAHAB.

## Electronic Settlement System

### SAHAB

The Retail Funds Transfer System (SAHAB) helped the transfer of more than 295 million transactions through ATMs in 1391, indicating 77.7 percent growth compared with the year before. Furthermore, approximately 10,224 thousand transactions processed through PIN pads were related to SAHAB. The number of transactions processed through SAHAB via the internet increased more than twice as much as the year before. Shares of ATMs, PIN pads, and internet in total transactions processed through SAHAB, in terms of volume, were respectively 90.8, 3.1, and 6.1 percent and, in terms of value, 77.1, 17.8, and 5.1 percent, respectively.

### SATNA

Upon full operation of the Automated Clearing House System (PAYA) in 1389, all small-value transactions were processed through PAYA in 1390 and only transactions involving values more than Rls. 150 million<sup>1</sup> were processed through RTGS (Real Time Gross Settlement) System or SATNA. Therefore, in 1391, the growth rate of the number

of customer to customer transactions through SATNA experienced a considerable decline compared with the previous year-end. In this year, total customer to customer transactions processed through SATNA, in terms of volume, decreased by 68.4 percent, while in terms of value, customer to customer transactions increased by 24.6 percent. The same trend applied to bank to bank transactions in a way that the number of these transactions decreased by 64.2 percent while their value increased by 56.5 percent. The volume and value of other subsystem transactions (SHETAB, Interbank Clearing House, and PAYA), processed through SATNA, rose respectively by 66.5 and 121.9 percent. Total transactions processed through SATNA, in terms of volume, reached nearly 4.5 million, indicating 67.7 percent fall compared with 1390. In terms of value, transactions processed through SATNA rose by 58.4 percent to Rls. 16,336 trillion. The highest share in total transactions processed through SATNA, in terms of volume, belonged to customer to customer transactions by 96.7 percent and in terms of value, 42.6 percent.

**Table 14.8. Volume and Value of Transactions Processed through SAHAB**

	Volume (thousand)		Growth (percent)	Value (trillion rials)		Growth (percent)
	1390	1391		1390	1391	
<b>Total transactions through SAHAB</b>	<b>179,168</b>	<b>325,473</b>	<b>81.7</b>	<b>910</b>	<b>1,968</b>	<b>116.3</b>
ATM (including kiosks)	166,315	295,465	77.7	755	1,516	100.9
PIN pad	4,179	10,224	144.7	118	351	198.2
Internet	8,675	19,785	128.1	37	101	168.0

**Table 14.9. Volume and Value of Transactions Processed through SATNA**

	Volume (thousand)		Growth (percent)	Value (trillion rials)		Growth (percent)
	1390	1391		1390	1391	
Bank to bank	96	34	-64.2	1,705	2,668	56.5
Customer to customer	13,779	4,352	-68.4	5,586	6,960	24.6
Clearing settlement systems (SHETAB, Interbank Clearing House, and PAYA)	69	115	66.5	3,022	6,708	121.9
<b>Total<sup>1</sup></b>	<b>13,945</b>	<b>4,502</b>	<b>-67.7</b>	<b>10,313</b>	<b>16,336</b>	<b>58.4</b>

<sup>1</sup> Excludes intraday liquidity facility and settlement by the CBI.

<sup>1</sup> Referred to in Circular No. 90/251146 dated Dey 19, 1390

**PAYA**

The Automated Clearing House System (PAYA), which was put into test operation in Dey 1388, became officially operational in 1389. During the first phase, the "credit transfer" core was put into operation for individual and multiple payment orders. Moreover, this payment service was developed in order to give coverage to multiple commercial payment orders and transactions. Therefore, as of 1389, PAYA as well as SATNA and SAHAB operated for the electronic transfer of funds throughout the country. SATNA and PAYA were utilized for bank to bank transfers, while SAHAB was used for retail funds transfer (card to card). In 1391, about 15.0 million banking transactions worth Rls. 1,757 trillion were processed through PAYA in the form of credit transfer, indicating a noticeable growth in terms of number and value compared with the year before. Upon the launching of the Electronic Cards Payment and Settlement System (SHAPARAK), a total of 238.8 million transactions, worth Rls. 2,814 trillion, were processed through this system via POSs. In this year, nearly 254 million transactions, worth Rls. 4,571 trillion, were processed through PAYA.

**TABA**

The Scripless Securities Settlement System (TABA), a pillar of the comprehensive payment system, was established in 1388 as

the infrastructure for the electronic issue and settlement of securities. TABA permits electronic issue and exchange of participation papers and Certificates of Deposit (CDs). Moreover, banks can easily get access to liquidity facility for use in SATNA by placing their securities in TABA. For the first time, in 1389, TABA paved the way for scripless issue and settlement of securities and participation papers. Thus, in 1390, Rls. 6,500 billion participation papers repurchased by Bank Saderat Iran were offered through TABA, of which Rls. 20 billion were purchased by Karafarin Bank and the remaining, by the Central Bank. Furthermore, the Central Depository System (CDS) was created for the public access to TABA during 1389-1390, enabling scripless issue and exchange of all securities. No new participation papers were issued via TABA in 1391.

**Total Value of Transactions**

Total value of transactions surged by 48.5 percent in nominal terms in 1391 compared with 1390, and reached Rls. 36,857 trillion. In 1391, the real value of total transactions (including the CPI) grew by 13.7 percent, indicating that the growth in the value of transactions was larger than the increase in prices. Therefore, the value of transactions increased in real terms, compared with the year before.

**Table 14.10. Number and Value of Transactions Processed through PAYA**

	Number (thousand)		Growth (percent)	Value (trillion rials)		Growth (percent)
	1390	1391		1390	1391	
Credit transfer	3,288	15,004	356.3	461	1,757	281.4
SHAPARAK	–	238,797	–	–	2,814	–
<b>Total</b>	<b>3,288</b>	<b>253,801</b>	<b>▣</b>	<b>461</b>	<b>4,571</b>	<b>▣</b>

Issuance of CBI Iran-Checks and their replacement for those issued by banks as of 1387 decreased the gross value of banks' Iran-Checks cleared through the Interbank Clearing House to Rls. 0.6 billion in 1391. Conversely, the value of ordinary checks cleared through the Interbank Clearing House advanced by 20.4 percent compared with 1390.

Considering the reduction in total transactions through various kinds of checks, value of electronic transactions increased in 1391. Therefore, share of electronic transactions in total value of transactions went up by 9.3 percentage points while share of transactions through ordinary checks in total value of transactions decreased by 9.3 percentage points, in nominal terms. Despite the rather low growth of the value of transactions through ordinary checks, these checks still had the highest share in total value of transactions by 39.9 percent. POS transactions, up by 144.1 percent compared with the year before, had the lion's share in the growth of the total value of transactions by 13.5 percentage points. Thus, share of POS in the total value of transactions grew by 6.0 percentage points to 15.4 percent in 1391.

### Share of Non-cash Payment Instruments

Development of electronic banking and expansion of electronic payment instruments

reduced the share of the number of transactions through ordinary checks settled in the Interbank Clearing House in total number of non-cash transactions by 2.9 percentage points. On the other hand, the shares of bank cards and PAYA in the total number of non-cash transactions increased by 3.3 and 0.4 percentage points, respectively. In this year, of total number of non-cash transactions, 94.9 percent was related to bank cards, and 4.4 percent to ordinary checks. The average value of each transaction settled through bank cards reached Rls. 3,352 thousand, constituting 26.6 percent of total value of non-cash transactions. Moreover, the high average value of each transaction settled through ordinary checks by Rls. 124.7 million brought the share of these checks in total value of non-cash transactions to 46.1 percent.

In 1391, customer to customer transactions through SATNA accounted for 0.2 percent of total number of non-cash transactions, indicating a reduction of 0.7 percentage point compared with the year before. As transactions through SATNA were mostly large-value transactions, with a high average value of Rls. 1,599.3 million per transaction, they accounted for 21.8 percent of total value of non-cash transactions. In this year, total share of ordinary checks and SATNA in the value of non-cash transactions declined by 11.7 percentage points.

**Table 14.11. Total Value of Transactions Processed through the Banking Sector**

	Value (trillion rials)		Growth (percent)	Share in growth (percentage points)	Share in total value of transactions (%)		Change in share (percentage points)
	1390▲	1391			1390▲	1391	
Iran-Checks issued by banks	0.003	0.0006	-79.4	*	*	*	*
Ordinary checks	12,225	14,719	20.4	10.0	49.2	39.9	-9.3
ATM	2,443	4,924	101.6	10.0	9.8	13.4	3.5
POS	2,324	5,673	144.1	13.5	9.4	15.4	6.0
PIN pad	1,786	2,824	58.1	4.2	7.2	7.7	0.5
SATNA (customer to customer)	5,586	6,960	24.6	5.5	22.5	18.9	-3.6
PAYA (credit transfer)	461	1,757	281.4	5.2	1.9	4.8	2.9
<b>Total transactions (nominal)</b>	<b>24,826</b>	<b>36,857</b>	<b>48.5</b>		<b>100.0</b>	<b>100.0</b>	
<b>Total transactions (real)<sup>1</sup></b>	<b>24,826</b>	<b>28,234</b>	<b>13.7</b>				

<sup>1</sup> CPI is used for the calculation of total transactions in real terms (1390=100).

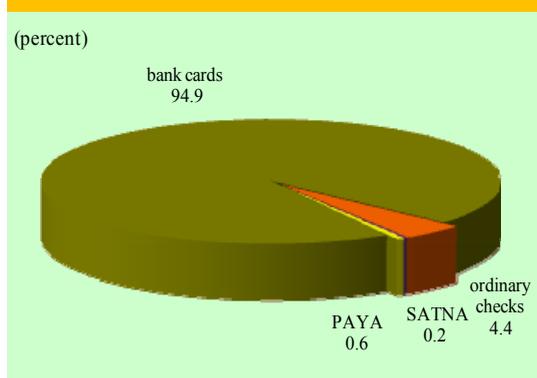
**Table 14.12. Share of Non-cash Payment Instruments in Total Volume and Value of Non-cash Transactions**

	Share in total volume (percent)		Share in total value (percent)		Average value per transaction (thousand rials)	
	1390	1391	1390▲	1391	1390▲	1391
Bank cards <sup>1</sup>	91.6	94.9	18.4	26.6	2,798	3,352
Ordinary checks <sup>2</sup>	7.3	4.4	54.6	46.1	104,155	124,678
SATNA (customer to customer)	0.9	0.2	25.0	21.8	405,424	1,599,321
PAYA (credit transfer)	0.2	0.6	2.1	5.5	140,084	117,079
<b>Total non-cash transactions</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>13,960</b>	<b>11,950</b>

<sup>1</sup> Includes transactions processed through POS and PIN pad, and excludes ATM. Non-cash payment transactions processed through ATM (such as payment of utility bills and cash transfers whose breakdown is not available) are excluded from this calculation.

<sup>2</sup> Includes only ordinary checks channeled through the Interbank Clearing House.

**Figure 14.3. Share of non-cash payment instruments in total volume of non-cash transactions in 1391**



**Figure 14.4. Share of non-cash payment instruments in total value of non-cash transactions in 1391**

