

In line with the adoption of a risk-based oversight approach on different electronic payment systems, CBI developed the foundation for electronic data-based supervisory framework on banks. Accordingly, development of SHAPARAK (Electronic Card Payment and Settlement System), full implementation of CHAKAVAK (Electronic System for Checks Image Transfer and Clearance), design of SAYAD (Bank-Wide Standard E-Checkbook Issuance), expansion of MAKNA (Credit Control and Oversight Center), operationalization of SIAM (Integrated System of Financial Inquiries), operationalization of NAMAD (Information Security Management System), implementation of NAHAB (Electronic Banking Authentication System), standardization of credit transfers channeled through PAYA based on international rules, and development of NASIM (Integrated Central Bank System) were among important measures adopted by the CBI in 1394. These developments were all aimed at the improved oversight and supervision of interbank transactions. Moreover, in the wake of the

nuclear deal between Iran and the P5+1 which led to the expansion of interactions in the international environment in monetary, foreign exchange, and banking areas, the financial messaging service of the Society for Worldwide Interbank Financial Telecommunication (SWIFT) was relaunched in 1394 with the aim of facilitating cross-border payments.

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 1394 amounted to Rls. 487.6 trillion. Notes and coins with the public (including CBI Iran-Checks) increased by 5.7 percent from Rls. 351.7 trillion at end-1393 to Rls. 371.9 trillion in 1394 year-end. Thus, the ratio of notes and coins with the public to GDP (at current prices) increased by 0.2 percentage point compared with 1393, to reach 3.3 percent (base year: 1390).

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

	Value (trillion rials)	Percentage change (annual)	Share in money (percent)	Share in liquidity (percent)	Ratio to GDP (percent)	Notes and coins per capita (thousand rials)
1393	351.7	5.3	29.1	4.5	3.1	4,517
1394	371.9	5.7	27.2	3.7	3.3	4,721

Sight Deposits

Total sight deposits reached Rls. 995.1 trillion at end-1394, showing 16.3 percent increase compared with the year before. Shares of sight deposits in money and liquidity were 72.8 and 9.8 percent, respectively, and their ratio to GDP was 8.9 percent at current prices (base year: 1390). Moreover, sight deposits per capita reached Rls. 12,633 thousand, showing 14.9 percent growth compared with the preceding year. Due to 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 13.2 percent from Rls. 1,207.6 trillion in 1393 year-end to Rls. 1,367.0 trillion at the end of 1394.

Check Settlement System

With the implementation of CHAKAVAK as the infrastructure of systematic and electronic processing of checks and other banking documents in mid-1393, which

gradually replaced the Interbank Clearing House by end-Khordad 1394, the check clearance was executed solely through CHAKAVAK system as of month Tir. Therefore, the number of checks channeled through the Interbank Clearing House sharply declined by 97.0 percent to 3.2 million in 1394. Accordingly, the value of these checks also showed a notable decline of 98.4 percent to reach Rls. 260.9 trillion. In contrast, the number and value of checks settled and cleared through CHAKAVAK increased to 119.4 million and Rls. 16,732.8 trillion, respectively. Considering the transactions of interbank checks via both systems, the total number of processed checks in 1394 decreased by 2.8 percent to 122.6 million and the total value of checks declined by 30.2 percent to Rls. 16,993.7 trillion. Therefore, the average value of each transaction decreased by 28.2 percent to Rls. 138,667 thousand compared with the corresponding figure for the previous year (Rls. 193,042 thousand).

Table 14.2. Sight Deposits and their Ratio to Macroeconomic Indicators

	Value (trillion rials)	Percentage change (annual)	Share in money (percent)	Share in liquidity (percent)	Ratio to GDP (percent)	Sight deposits per capita (thousand rials)
1393	855.9	-0.7	70.9	10.9	7.6	10,993
1394	995.1	16.3	72.8	9.8	8.9	12,633

Table 14.3. Volume and Value of Transactions Processed through Checks

	Volume (million)		Percentage change	Value (trillion rials)		Percentage change
	1393	1394		1393	1394	
CHAKAVAK	21.4	119.4	457.6	7,551.9	16,732.8	121.6
Interbank Clearing House	104.6	3.2	-97.0	16,779.0	260.9	-98.4
Total	126.0	122.6	-2.8	24,330.9	16,993.7	-30.2

Electronic Payment System

Expansion of Electronic Payment Instruments

In 1394, the number of cards issued in the banking sector decreased by 0.9 percent to 330.9 million. Among these cards, 212.9 million were debit cards (64.3 percent), 116.3 million were prepaid cards in the form of purchase and gift cards (35.2 percent), and merely 1.6 million were credit cards (0.5 percent). The number of cards issued in the country for each individual decreased from 4.3 at end-1393 to 4.2 cards in 1394 year-end.

The number of ATMs increased by 8.8 percent to 43,924 in 1394. The number of PIN pads (electronic devices used in debit, credit, or smart card-based transactions) rose 9.7 percent to 71,699. The number of POSs surged by 19.2 percent to 4,433.7 thousand which, compared with the lower increase in the number of ATMs, signifies the positive trend of the banking sector in expanding electronic payments. The ratio of issued cards to ATMs was 7,532 and to PIN pads and POSs, 4,614 and 75, respectively.

Development of Electronic Transactions

In 1394, the total volume and value of electronic transactions settled through the banking sector reached 15,630 million and

Rls. 30,318 trillion, respectively. The volume of electronic transactions processed through ATMs and POSs grew by respectively 3.2 and 40.9 percent. Accordingly, the value of electronic transactions processed through ATMs and POSs increased by 2.0 and 10.5 percent in 1394. The volume and value of transactions processed through PIN pads increased by respectively 11.1 and 0.2 percent during 1394. Moreover, the volume and value of transactions processed through cell phones, landlines, kiosks, and internet increased by 20.0 and 39.2 percent, respectively. The total volume of transactions per card was 47.2, indicating growth when compared with 38.3 transactions in 1393.

Table 14.5. Number of Electronic Payment Instruments

	Year-end		Percentage change
	1393	1394	
Bank cards (thousand)	333,891	330,851	-0.9
ATM	40,369	43,924	8.8
POS	3,721,023	4,433,666	19.2
PIN pad	65,337	71,699	9.7

Table 14.4. Bank Cards

	Number (thousand)		Growth (percent)	Share (percent)		Change in share (percentage points)
	1393	1394		1393	1394	
Debit cards	223,015	212,891	-4.5	66.8	64.3	2.5
Credit cards	1,684	1,637	-2.8	0.5	0.5	0.0
Prepaid cards	109,193	116,323	6.5	32.7	35.2	-2.5

Chapter 14 PAYMENT SYSTEMS

The share of ATMs in the total volume and value of electronic transactions processed through the banking sector was 32.4 and 45.3 percent and POSs had respectively 49.2 and 31.8 percent shares in the total volume and value of electronic transactions in 1394. The share of transactions processed through ATMs, PIN pads, and "cell phones, landlines, kiosks, and internet" decreased by 6.0, 0.2, and 0.3 percentage points in terms of volume, while the share of the number of POSs in total transactions increased. This shows the growing public tendency towards the wider use of new electronic payment instruments in daily transactions. It is expected that with the extensive use of credit and prepaid cards, as well as more availability of electronic payment instruments throughout

the country, the share of electronic transactions will increase while the use of cash in daily transactions will decrease in the future. Furthermore, PIN pads enjoyed respectively 1.8 and 17.8 percent shares in the total volume and value of electronic transactions in 1394.

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 86.4 and 64.2 percent, respectively, indicating an increase when compared with the corresponding figures in the year before (82.1 and 57.9 percent).

Figure 14.1. Share of electronic payment instruments in total volume of electronic transactions in the banking sector in 1394

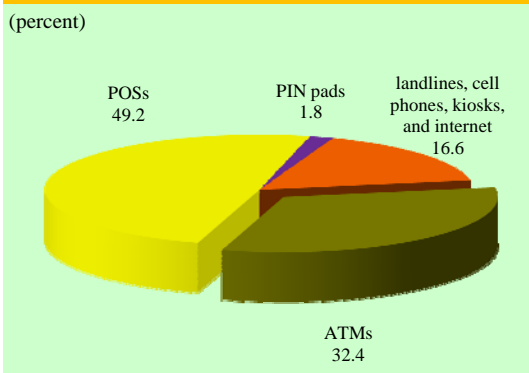


Figure 14.2. Share of electronic payment instruments in total value of electronic transactions in the banking sector in 1394

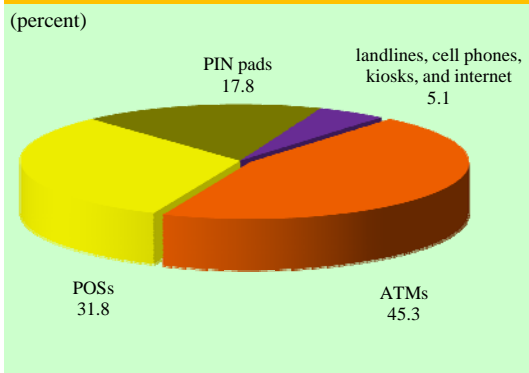


Table 14.6. Volume and Value of Electronic Transactions Processed through the Banking Sector

	Volume (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	1393	1394		1393	1394	
Total electronic transactions	12,783	15,630	22.3	28,693	30,318	5.7
ATM	4,908	5,063	3.2	13,457	13,721	2.0
POS	5,453	7,684	40.9	8,739	9,654	10.5
PIN pad	254	282	11.1	5,387	5,398	0.2
Cell phone, landline, kiosk, and internet	2,167	2,601	20.0	1,110	1,545	39.2

Electronic Settlement System

SAHAB

The Retail Funds Transfer System (SAHAB) helped the transfer of 860 million transactions through ATMs in 1394, indicating 27.8 percent growth compared with the year before. Furthermore, 44 million transactions processed through PIN pads were related to SAHAB. The volume of transactions processed through SAHAB via the internet and kiosks increased by 69.4 percent. Shares of ATMs, PIN pads, and "internet and kiosks" in the total volume of transactions processed through SAHAB were 81.1, 4.1, and 14.8 percent and in terms of value, 65.4, 24.0, and 10.6 percent, respectively. A total of 1,060 million transactions, valued at Rls. 7,813 trillion, were processed through SAHAB in 1394.

SATNA

The total volume of transactions processed through RTGS (Real Time Gross Settlement) System or SATNA, as the main infrastructure for large-value payments, increased by 22.0 percent to 7.8 million. Moreover, the total value of transactions processed through SATNA reached Rls. 55,555 trillion, indicating 25.1 percent growth compared with 1393. The total volume of customer-to-customer transactions processed through SATNA increased by 22.5 percent to 7.4 million and the value of customer-to-customer transactions increased by 52.6 percent to Rls. 17,415 trillion. Accordingly, the total volume and value of bank-to-bank transactions increased by 47.0 and 57.1 percent, respectively. The volume and value of other subsystem transactions (SHETAB, Interbank Clearing House, and PAYA)

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

	Volume (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	1393	1394		1393	1394	
Total transactions through SHETAB¹	10,499	13,511	28.7	16,601	19,453	17.2
ATM	2,832	3,167	11.9	5,247	6,369	21.4
POS	5,453	7,684	40.9	8,739	9,654	10.5
Others (landline, cell phone, internet, kiosk, and branches)	2,214	2,660	20.1	2,615	3,430	31.1

¹Includes interbank electronic transactions processed through SAHAB.

Table 14.8. Volume and Value of Transactions Processed through SAHAB

	Volume (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	1393	1394		1393	1394	
Total transactions through SAHAB	799	1,060	32.7	6,118	7,813	27.7
ATM	673	860	27.8	4,107	5,112	24.5
PIN pad	34	44	30.1	1,496	1,873	25.2
Internet and kiosk	92	157	69.4	515	828	60.7

processed through SATNA rose by respectively 1.7 and 3.8 percent to reach 255 thousand transactions and Rls. 26,688 trillion.

PAYA

The Automated Clearing House System (PAYA), as one of the infrastructures of interbank transactions, receives payment orders from the originating bank and after processing, sends orders to the destination bank. Accordingly, upon the full launching of SHAPARAK, completion of transactions and the transfer of funds to accounts of goods' and services' suppliers were directed through the PAYA system. Moreover, with the possibility of processing direct transfer orders through PAYA, this system together with SATNA and SAHAB covered and processed all electronic funds transfer

orders. SATNA and PAYA are utilized for bank-to-bank transfer of funds while SAHAB is used for card to card retail funds transfer. In 1394, about 33 million banking transactions worth Rls. 1,984 trillion were processed through PAYA in the form of credit transfer, indicating 26.5 percent growth in volume. Their value, however, decreased by 33.9 percent, mainly due to the imposition of a ceiling of Rls. 500 million on transactions channeled through PAYA¹.

Total Value of Transactions

In 1394, the nominal value of total transactions decreased by 1.1 percent compared with 1393 to reach Rls. 66,711 trillion. Moreover, the real value of total transactions (considering 11.9 percent growth in the CPI of goods and services) decreased by 11.6 percent.

Table 14.9. Volume and Value of Transactions Processed through SATNA

	Volume (thousand)		Growth (percent)	Value (trillion rials)		Growth (percent)
	1393	1394		1393	1394	
Bank-to-bank	86	127	47.0	7,288	11,452	57.1
Customer-to-customer	6,020	7,375	22.5	11,413	17,415	52.6
Clearing settlement systems (SHETAB, Interbank Clearing House, and PAYA)	250	255	1.7	25,713	26,688	3.8
Total¹	6,356	7,757	22.0	44,414	55,555	25.1

¹ Excludes intraday liquidity facility and settlement by the CBI.

Table 14.10. Volume and Value of Transactions Processed through PAYA

	Volume (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	1393	1394		1393	1394	
Credit transfer	26	33	26.5	3,000	1,984	-33.9
SHAPARAK	1,237	1,631	31.9	9,187	10,248	11.5
Total	1,263	1,664	31.8	12,187	12,232	0.4

¹ Subject of Letter No. 93/226468 dated Aban 24, 1393, Payment Systems Department, CBI.

Issuance of CBI Iran-Checks raised the volume of notes and coins in public possession. Due to the unrestricted circulation in cash transactions and unaccounted circulation frequency, CBI Iran-Checks are not included in the calculation of total transactions. While the number of total transactions through various kinds of checks was lower than 1393, the value of electronic transactions increased in 1394. Therefore, the share of transactions through various kinds of checks in the total value of transactions decreased by 10.6 percentage points while the share of electronic transactions in the total value of transactions increased by 10.6 percentage points in nominal terms. Contrary to previous years when the higher share of total transactions was related to check transactions, customer-to-customer transactions through SATNA had the highest share in the total value of transactions by 26.1 percent in this year. ATM transactions, up by 2.0 percent compared with 1393, accounted for 0.4 percentage point of the growth in the total

value of transactions. Thus, the share of ATMs in the total value of transactions increased by 0.6 percentage point to 20.6 percent in 1394. The value share of customer-to-customer transactions processed through SATNA increased from 16.9 percent in 1393 to 26.1 percent in 1394. The value of transactions through POSs increased by 10.5 percent. Moreover, the share of POS transactions in the total value rose by 1.5 percentage points to 14.5 percent. The value of PAYA in total transactions, with 33.9 percent fall compared with 1393, accounted for 3.0 percent of the total value of transactions in 1394.

Share of Non-cash Payment Instruments

Developments of electronic banking and expansion of electronic payment instruments reduced the share of the volume of transactions through various checks in the total volume of non-cash transactions by 0.3 percentage point. On the other hand, the share of bank cards in the total volume of

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)
	1393	1394			1393	1394	
Various checks ¹	24,331	16,994	-30.2	-10.9	36.1	25.5	-10.6
ATM	13,457	13,721	2.0	0.4	20.0	20.6	0.6
POS	8,739	9,654	10.5	1.4	13.0	14.5	1.5
PIN pad	5,387	5,398	0.2	0.0	8.0	8.1	0.1
Cell phone, landline, kiosk and internet	1,110	1,545	39.2	0.6	1.6	2.3	0.7
SATNA (customer-to-customer)	11,413	17,415	52.6	8.9	16.9	26.1	9.2
PAYA (credit transfer)	3,000	1,984	-33.9	-1.5	4.4	3.0	-1.4
Total transactions (nominal)	67,437	66,711	-1.1		100.0	100.0	
Total transactions (real)²	33,181	29,329	-11.6				

¹ Includes only bank-to-bank transactions processed through the Interbank Clearing House and CHAKAVAK system, excluding intra-bank transactions.

² CPI is used for the calculation of total transactions in real terms (1390=100).

non-cash transactions increased by 0.3 percentage point. Of the total volume of non-cash transactions, 98.8 percent was related to bank cards, 0.9 percent to ordinary checks, and 0.3 percent to PAYA and SATNA. The average value of each transaction settled through bank cards reached Rls. 2,096 thousand in 1394, constituting about 43.4 percent of the total value of non-cash transactions. The high average value of each transaction settled through ordinary checks at Rls. 138.7 million brought the share of these checks in the total value of non-cash transactions to 26.4 percent.

The customer-to-customer transactions through SATNA accounted for 0.1 percent of the total volume of non-cash transactions in 1394. As transactions through SATNA were mostly large-value transactions with a high average value of Rls. 2,361.2 million per transaction, these transactions accounted for 27.1 percent of the total value of non-cash transactions in 1394. Meanwhile, the total share of ordinary checks and PAYA in the value of non-cash transactions decreased by 12.7 percentage points while the total share of cards and SATNA rose by 12.7 percentage points.

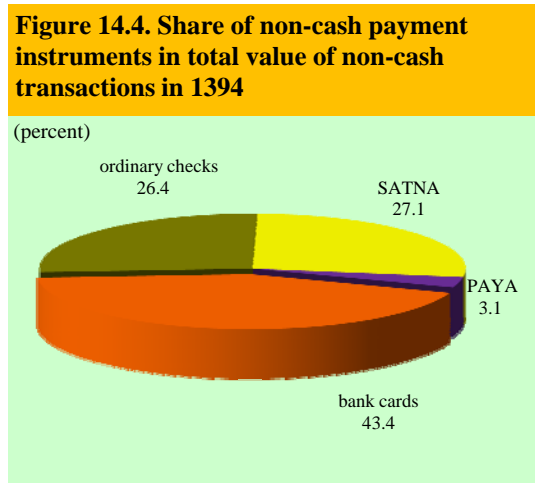
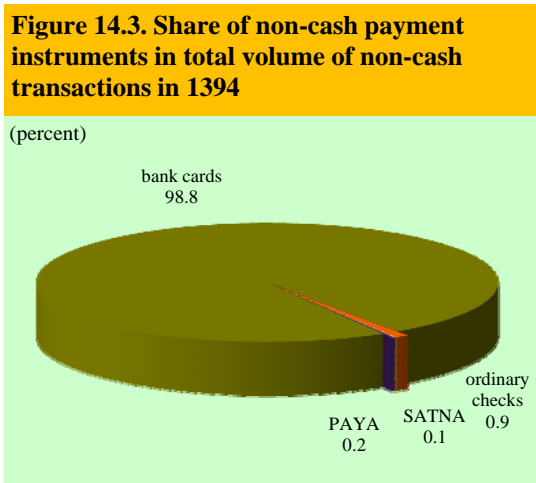


Table 14.12. Share of Non-cash Payment Instruments in Total Volume and Value of Non-cash Transactions

	Share in total volume (percent)		Share in total value (percent)		Average value per transaction (thousand rials)	
	1393	1394	1393	1394	1393	1394
Bank cards ¹	98.5	98.8	40.2	43.4	2,488	2,096
Ordinary checks ²	1.2	0.9	37.6	26.4	193,042	138,667
SATNA (customer-to-customer)	0.1	0.1	17.6	27.1	1,896,054	2,361,249
PAYA (credit transfer)	0.2	0.2	4.6	3.1	116,061	60,664
Total non-cash transactions	100.0	100.0	100.0	100.0	6,104	4,772

¹ Includes transactions processed through POS, PIN pad, cell phone, landline, kiosk, internet, and ATM (excluding cash withdrawals).

² Includes only ordinary checks channeled through the Interbank Clearing House and CHAKAVAK system, excluding intra-bank documents.