CHAPTER 15

PAYMENT SYSTEMS

Important measures in 2021/22 by the CBI in the realm of the payment systems of the country include the diversification of customer identification procedures in the banking network, the continuous improvement in information collection processes under the Electronic Banking Authentication System (NAHAB), and the operationalization of the second version of the dynamic password for online payments. Efforts to enhance security infrastructure led to the identification and shutdown of various online portals associated with illegal gambling and betting, significantly cleaning up the country's payment network. Furthermore, in implementation of "Amended Law on Check Issuance", check registration, approval, and transfer have been enabled within the Bank-Wide Standard E-Checkbook Issuance (SAYAD) system. The said services were made accessible through various channels, including in-person at branches, ATMs, and kiosks, as well as online via internet and mobile banking, and applications connected to the SHAPARAK Hub, in collaboration with banks.

15.1. Cash Payment

15.1.1. Banknotes and Coins

Banknotes and coins are the common means of cash payment. With the inclusion of Iran-Checks issued by the Central Bank, the approximate value of banknotes and coins issued by March 2022 amounted to Rls. 991.3 trillion. Banknotes and coins with the public (including the Iran-Checks issued by the CBI) rose by 17.6 percent, from Rls. 735.0 trillion in March 2021 to Rls. 864.3 trillion in March 2022. The share of the banknotes and coins with the public in GDP (at current prices) fell by 0.5 percentage point to reach 1.3 percent in March 2022. The share of the banknotes and coins in broad money amounted to 1.8 percent in March 2022, indicating a decrease of 0.3 percentage point compared with March 2021. Similarly, the share of the banknotes and coins in money fell by about 1.9 percentage points compared with March 2021, to reach 8.8 percent in March 2022. The value of banknotes and coins with the public per capita amounted to about Rls. 10,222 thousand in March 2022, up by 16.9 percent compared with March 2021.

15.1.2. Sight Deposits

Total value of sight deposits reached Rls. 9,001.5 trillion in March 2022, up by 45.8 percent compared with March 2021. The shares of sight deposits in money, broad money, and GDP were 91.2, 18.6 and 13.8 percent, respectively, at current prices. Sight deposits per capita increased by 44.9 percent to almost Rls. 106,464 thousand. Due to the rise in the value of banknotes and coins with the public as well as sight deposits, total money supply (banknotes and coins with the public plus sight deposits) increased by 42.8 percent from Rls. 6,909.6 trillion in March 2021 to Rls. 9,865.8 trillion in March 2022.

Table 15.1. Banknotes and Coins with the Public, Ratio to Macroeconomic Indicators (at current prices)

	Value (trillion rials)	Percentage change (annual)	Share in money (percent)	Share in broad money (percent)	Share in GDP [1] (percent)	Value per capita (thousand rials)
March 2021	735.0	20.2	10.6	2.1	1.8	8,744
March 2022	864.3	17.6	8.8	1.8	1.3	10,222

Table 15.2. Sight Deposits, Ratio to Macroeconomic Indicators (at current prices)

	Value (trillion rials)	Percentage change (annual)	Share in money (percent)	Share in broad money (percent)	Share in GDP [1] (percent)	Value per capita (thousand rials)
March 2021	6,174.6	68.6	89.4	17.8	15.5	73,459
March 2022	9,001.5	45.8	91.2	18.6	13.8	106,464

15.2. Check Settlement System

The implementation of CHAKAVAK in 2014 and its gradual replacement for the Interbank Clearing House by June 2015 paved the way for the execution of check clearance solely via CHAKAVAK as of 2016. The number of the checks channeled via CHAKAVAK reached 87.1 million in March 2022, down by 20.5 percent. The value of these checks reached Rls. 47,242.7 trillion, showing an increase of 28.4 percent. Thus, the average value per transaction increased by 61.6 percent from Rls. 335.6 million in March 2021 to Rls. 542.3 million in March 2022. The number of transactions via checks per capita was 1.0 and the value of check transactions per capita was about Rls. 558.8 million. The ratio of the value of check transactions to GDP was 0.7 at current prices, indicating a fall compared with the respective figure (0.9) in the year before.

15.3. Electronic Payment Systems

15.3.1. Expansion of Electronic Payment Instruments

The number of cards issued by the banking network increased by 7.5 percent compared with March 2021, to reach 385.7 million in March 2022. Out of the total number of cards, 251 million were debit cards (65.1 percent), 127 million (32.9 percent) were prepaid cards (purchase and gift cards), and roughly 7.6 million (2.0 percent) were credit cards. The number of issued cards per capita increased by 0.3 point, from 4.3 cards in March 2021 to 4.6 cards in March 2022.

Table 15.3. Transactions Processed through Checks

	Number (million)		Percentage change	Value (trillion rials)		Percentage change
	March 2021	March 2022		March 2021	March 2022	
CHAKAVAK	109.6	87.1	-20.5	36,792.1	47,242.7	28.4

In March 2022, the number of ATMs decreased by 10.6 percent to 54,019, that of PIN pads (electronic devices used in debit, credit, or smart card-based transactions within bank branches) fell by 6.6 percent to 62,632, and that of POSs surged by 8.0 percent to 7.8 million. The ratios of issued cards to ATMs, PIN pads, and POSs were almost 7,140, 6,158 and 49, respectively.

15.3.2. Development of Electronic Transactions

In March 2022, the total number and value of electronic transactions reached 46,873 million and Rls. 154,759 trillion, respectively. The number of electronic transactions processed through the ATMs decreased by 8.4 percent, while that of the POSs increased by 17.9 percent. The value of transactions processed via the ATMs rose by 43.1 percent, and that of the POSs increased by 37.6 percent. The number of PIN pad transactions fell by 17.2 percent, while the value of PIN pad transactions rose by 19.6 percent compared with March 2021. Moreover, the number of transactions processed through "landlines, cell phones, kiosks, and internet" decreased by 15.2 by March 2022, while the value of such transactions increased by 55.9 percent compared with March 2021. The total number of transactions per card was 121.5 in March 2022, up by about 1.0 percent compared with 120.4 transactions in the year before. The ratio of the number of ATM transactions to each ATM was almost 96,411 by March 2022. This ratio was 4,509 for POS and 3,688 for PIN pad transactions. The ratio of the value of transactions to the number of transactions amounted to Rls. 6,792 thousand per ATM, almost Rls. 1,767 thousand per POS, and Rls. 106,810 thousand per PIN pad.

Table 15.4. Number of Electronic Payment Instruments

	March		Percentage change
	2021	2022□	
Bank cards (million)	358.8	385.7	7.5
ATM (thousand)	60.4	54.0	-10.6
POS (thousand)	7,219.9	7,800.0	8.0
PIN pad (thousand)	67.0	62.6	-6.6

Table 15.5. Bank Cards

	Number (million)		Growth (percent)	Share (percent)		Change in share (percentage points)
	March 2021	March 2022		March 2021	March 2022	
Debit cards	241	251	4.1	67.2	65.1	-2.2
Credit cards	5	8	53.6	1.4	2.0	0.6
Prepaid (purchase and gift) cards	113	127	12.7	31.4	32.9	1.5

Table 15.6. Electronic Transactions Processed through the Banking Network

	Number (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	March 2021	March 2022□		March 2021	March 2022□	
ATM	5,685	5,208	-8.4	24,725	35,371	43.1
POS	29,836	35,170	17.9	45,184	62,191	37.6
PIN pad	279	231	-17.2	20,638	24,673	19.6
Landline, cell phone, kiosk, and internet	7,386	6,264	-15.2	20,860	32,524	55.9
Total	**43,186**	**46,873**	**8.5**	**111,407**	**154,759**	**38.9**

ATMs had shares of respectively 11.1 and 22.9 percent in the total number and value of electronic transactions processed through the banking network in March 2022. Meanwhile, POSs enjoyed shares of respectively 75.0 and 40.2 percent in the total number and value of electronic transactions.

Of note, the shares of the number of transactions processed through the ATMs, PIN pads, and "landlines, cell phones, kiosks, and internet" decreased by roughly 2.1, 0.2, and 3.7 percentage points, respectively, compared with March 2021. On the other hand, the shares of the number of transactions via POSs indicated an increase of 5.9 percentage points compared with the year before.

PIN pads enjoyed shares of respectively 0.5 and 15.9 percent in the total number and value of electronic transactions in March 2022. PIN pads are widely used for the electronic transfer of funds via bank cards among various accounts in one bank or the interbank transfer of funds. The share of "landlines, cell phones, kiosks, and internet" in the number of electronic transactions was 13.4 percent and in the value of electronic transactions, 21.0 percent.

15.3.3. SHETAB

A large number of electronic transactions are settled via the Interbank Information Transfer Network, known in Iran as SHETAB. The share of the SHETAB center in the total number of electronic transactions processed through the banking network was 98.2 percent and in the total value, 87.6 percent. This indicated a slight rise compared with the corresponding figures in the year before (93.2 and 85.4 percent). The number of the ATM transactions processed via the SHETAB center decreased by 7.4 percent to 4,573 million, while that of POS transactions processed via the SHETAB center increased by 17.7 percent to 35,129 million. The value of SHETAB transactions via ATMs and POSs amounted to Rls. 37,747 trillion and Rls. 62,169 trillion in March 2022, indicating increases of respectively 58.1 and 37.6 percent. POSs had the highest shares of the number and value of SHETAB transactions by 76.3 and 45.9 percent, respectively. The total number of transactions processed through the SHETAB center topped 46,045 million, worth Rls. 135,584 trillion. This indicated increases of 14.4 and 42.5 percent, respectively, compared with March 2021.

Figure 15.1. Share of Electronic Payment Instruments in Total Number of Electronic Transactions in March 2022

(percent)

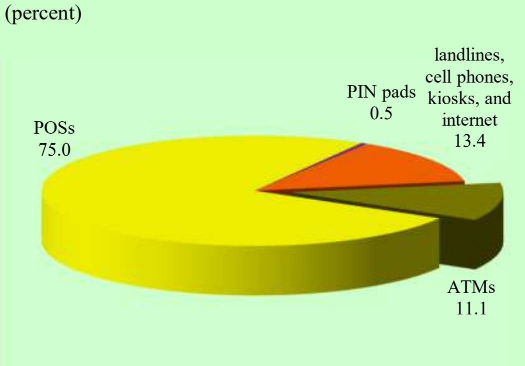

Figure 15.2. Share of Electronic Payment Instruments in Total Value of Electronic Transactions in March 2022

(percent)

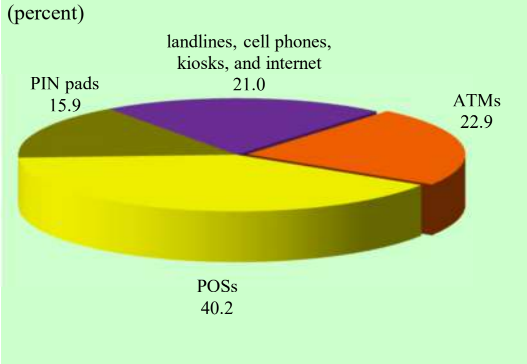

Table 15.7. Interbank Transactions Processed through SHETAB

	Number (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	March 2021	March 2022□		March 2021	March 2022□	
ATM	4,936	4,573	-7.4	23,877	37,747	58.1
POS	29,836	35,129	17.7	45,185	62,169	37.6
Other (landline, cell phone, kiosk, internet, and branches)	5,484	6,343	15.7	26,116	35,668	36.6
Total[1]	**40,256**	**46,045**	**14.4**	**95,177**	**135,584**	**42.5**

[1] Includes interbank electronic transactions processed through SAHAB (Retail Funds Transfer System).

15.4. Electronic Settlement Systems

15.4.1. SAHAB

The total number of the interbank transactions processed through the Retail Funds Transfer System (SAHAB), as a major service rendered by the SHETAB center, amounted to 4,642 million, worth Rls. 62,061 trillion, in March 2022. A total of 2,102 million fund transfers, valued at Rls. 35,766 trillion, were processed via the ATMs connected to SAHAB, showing growth rates of 19.6 in terms of number and 62.4 percent in terms of value. Furthermore, 59 million SAHAB transactions, valued at Rls. 3,121 trillion, were processed through PIN pads, down by 24.1 percent and 40.5 percent in terms of number and value, respectively. The number of SAHAB transactions via the "kiosks and internet" indicated an increase of 35.6 percent compared with the previous year, amounting to 2,481 million with a value of Rls. 23,174 trillion.

The shares of ATMs, PIN pads, and "kiosks and internet" were respectively 45.3, 1.3 and 53.4 percent in the total number and 57.6, 5.0 and 37.3 percent in the total value of SAHAB transactions. Thus, the expansion of the use of electronic money orders in the future is well expected.

15.4.2. SATNA

The number of transactions processed through the RTGS (Real Time Gross Settlement) System or the Iranian SATNA, as the main infrastructure for large-value payments, increased by 17.4 percent to 65.2 million in March 2022. The value of transactions processed via SATNA reached Rls. 410,159 trillion, indicating a growth rate of 23.9 percent compared with March 2021. The number of customer-to-customer transactions processed through SATNA increased by 17.5 percent to 64.6 million, with their value rising by 24.2 percent to Rls. 176,662 trillion compared with March 2021.

Table 15.8. Transactions Processed through SAHAB

	Number (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	March 2021	March 2022		March 2021	March 2022	
ATM	1,757	2,102	19.6	22,029	35,766	62.4
PIN pad	77	59	-24.1	5,246	3,121	-40.5
Kiosk and internet	1,829	2,481	35.6	11,166	23,174	107.5
Total	**3,664**	**4,642**	**26.7**	**38,441**	**62,061**	**61.4**

The number of clearing settlement systems operating via SATNA rose by 19.4 percent to 235 thousand, and their value increased by 38.1 percent to Rls. 170,134 trillion. The number of bank-to-bank transactions increased by 1.0 percent compared with March 2021, while the value of such transactions decreased by 3.2 percent compared with the year before, reaching 339 thousand transactions worth Rls. 63,363 trillion. In March 2022, the customer-to-customer transactions accounted for the highest shares in the number and value of transactions processed through SATNA by 99.1 and 43.1 percent, respectively.

15.4.3. PAYA

The Automated Clearing House System (PAYA) is an infrastructure of interbank transactions, receiving payment orders from the originating bank and sending orders to the destination bank upon processing. With the full launching of the Electronic Card Payment and Settlement System (SHAPARAK), the completion of transactions and the transfer of funds to the accounts of goods' and services' suppliers were directed through the PAYA system. With the possibility of processing direct transfer orders through PAYA, this system, together with SATNA and SAHAB, covers all electronic orders for fund transfers. SATNA and PAYA are utilized for the account-to-account transfer of funds, while SAHAB is used for card-to-card retail fund transfers. In March 2022, about 346 million banking transactions worth Rls. 28,204 trillion were processed through PAYA in the form of direct credit transfers, indicating growth rates of 10.7 and 58.6 percent in terms of number and value, respectively. Meanwhile, a total of 2,246 million transactions, with a value of Rls. 71,114 trillion, were processed via SHAPARAK. Thus, the total number of PAYA transactions was 2,592 million, with a value of Rls. 99,318 trillion, indicating growth rates of 20.3 and 39.8 percent, respectively.

Table 15.9. Transactions Processed through SATNA

	Number (thousand)		Growth (percent)	Value (trillion rials)		Growth (percent)
	March 2021	March 2022		March 2021	March 2022	
Bank-to-bank transactions	336	339	1.0	65,474	63,363	-3.2
Customer-to-customer transactions	55,028	64,630	17.5	142,285	176,662	24.2
Clearing settlement systems	197	235	19.4	123,152	170,134	38.1
Total [1]	**55,560**	**65,204**	**17.4**	**330,910**	**410,159**	**23.9**

[1] Excludes CBI's intraday liquidity facility and settlements.

Table 15.10. Transactions Processed through PAYA

	Number (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	March 2021	March 2022		March 2021	March 2022	
Direct credit transfers	312	346	10.7	17,778	28,204	58.6
SHAPARAK	1,843	2,246	21.9	53,276	71,114	33.5
Total	**2,155**	**2,592**	**20.3**	**71,055**	**99,318**	**39.8**

15.4.4. SIMA

Upon the launching of the Scripless Securities Settlement System (TABA) in 2010/11, which was introduced as an infrastructure for the electronic issuance and settlement of securities, various feasibility studies were conducted on the operation of the Integrated Management System of Securities (SIMA), with the aim of the fully electronic issuance of securities. This subsystem was made operational in 2012/13. Accordingly, Rls. 80 trillion worth of electronic participation papers was issued by 9 municipalities (Tehran, Mashhad, Shiraz, Tabriz, Karaj, Isfahan, Qom, Ahvaz, and Kermanshah) via the SIMA system by March 2022. These papers were placed on the market via several agent banks including Bank Sepah, Bank Melli Iran, Shahr Bank, Tejarat Bank, Refah Kargaran Bank, Bank Mellat, and Bank Saderat Iran.

15.5. Total Value of Transactions

In March 2022, the nominal value of transactions in the banking network, processed through both electronic payment instruments and checks, increased by 32.0 percent compared with March 2021, to reach Rls. 406,867 trillion. The real value of transactions, considering the increase in the CPI of goods and services, decreased by 9.7 percent. Due to their unrestricted circulation frequency, the banknotes and coins with the public as well as the Iran-Checks issued by the CBI were not included in calculations. The share of the value of check transactions in all electronic transactions decreased by 0.3 percentage point to 11.6 percent. By contrast, the share of the total value of electronic transactions increased by 0.3 percentage point to reach 88.4 percent. The value of transactions processed through "landlines, cell phones, kiosks, and internet" experienced the highest rise by 55.9 percent and the share of the value of transactions processed through "landlines, cell phones, kiosks, and internet" rose by 1.2 percentage points. The value of transactions processed through POSs and ATMs rose by 37.6 and 43.1 percent, respectively, and the share of value of these transactions in the total value increased by 0.6 and 0.7 percentage points, respectively. The value of PIN pad transactions rose by 19.6 percent, while the share of the value of transactions through PIN pads declined by 0.6 percentage point. Reviewing data on transactions processed through electronic payment systems indicates that the value of customer-to-customer transactions processed via SATNA increased by 24.2 percent. The share of the value of customer-to-customer transactions processed via SATNA decreased from 46.2 percent in March 2021 to 43.4 percent in March 2022 (enjoying the highest share as in March 2021). The value of PAYA transactions (direct credit transfers), with a rise of 58.6 percent compared with March 2021, accounted for 6.9 percent of the total value of transactions in March 2022. This share indicated a rise of about 1.2 percentage points compared with March 2021.

15.6. Share of Non-cash Payment Instruments

Of the total number of non-cash transactions processed in the banking network, 98.9 percent was related to bank cards in March 2022. PAYA, SATNA, and checks constituted respectively 0.8, 0.1 and 0.2 percent of the number of non-cash transactions, totaling 1.1 percent. Of the total value of non-cash transactions, SATNA constituted the highest share by 43.6 percent, while PAYA held the lowest share by 7.0 percent. The average value of each transaction settled via SATNA reached Rls. 2,733 million and that settled through PAYA was Rls. 81.5 million.

The share of bank cards in the total value of non-cash transactions rose to 37.8 percent. The average value of each transaction processed through bank cards totaled Rls. 3.4 million. In March 2022, the share of checks in the total value of non-cash transactions was 11.7 percent. Meanwhile, the average value of each transaction processed through different types of checks was Rls. 542.3 million, which was higher than the average value of transactions processed via PAYA and bank cards in March 2022. The total share of the value of checks and customer-to-customer transactions processed via SATNA experienced a decrease of about 3.1 percentage points. On the contrary, the total share of the value of the transactions processed via bank cards and PAYA (direct credit transfers) experienced an increase of 3.1 percentage points.

Table 15.11. Transactions Processed through the Banking Network

	Value (trillion rials)				Share in total value of transactions (%)		
	March 2021	March 2022	Growth (percent)	Share in growth (percentage points)	March 2021	March 2022	Change in share (percentage points)
Checks[1]	**36,792**	**47,243**	**28.4**	**3.6**	**11.9**	**11.6**	**-0.3**
Electronic payment instruments and systems	**271,470**	**359,625**	**32.5**	**28.6**	**88.1**	**88.4**	**0.3**
Electronic payment instruments	**111,407**	**154,759**	**38.9**	**14.1**	**36.1**	**38.0**	**1.9**
ATM	24,725	35,371	43.1	3.5	8.0	8.7	0.7
POS	45,184	62,191	37.6	5.5	14.7	15.3	0.6
PIN pad	20,638	24,673	19.6	1.3	6.7	6.1	-0.6
Landline, cell phone, kiosk, and internet	20,860	32,524	55.9	3.8	6.8	8.0	1.2
Electronic payment systems	**160,063**	**204,866**	**28.0**	**14.5**	**51.9**	**50.4**	**-1.6**
SATNA (customer-to-customer)	142,285	176,662	24.2	11.2	46.2	43.4	-2.7
PAYA (direct credit transfers)	17,778	28,204	58.6	3.4	5.8	6.9	1.2
Total (nominal)	**308,262**	**406,867**	**32.0**	**N/A**	**100.0**	**100.0**	**N/A**
Total (real)[2]	**450,675**	**406,867**	**-9.7**	**N/A**	**N/A**	**N/A**	**N/A**

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

[2] The CPI is used for the calculation of transactions in real terms (2021/22=100).

Table 15.12. Share of Non-cash Payment Instruments in Total Number and Value of Non-cash Transactions

	Share in total number (percent)		Share in total value (percent)[1]		Average value per transaction (thousand rials)	
	March 2021	March 2022	March 2021	March 2022	March 2021	March 2022
Bank cards[2]	98.9	98.9	35.9	37.8	2,641	3,376
Checks[3]	0.3	0.2	12.0	11.7	335,591	542,310
SATNA (customer-to-customer)	0.1	0.1	46.3	43.6	2,585,688	2,733,417
PAYA (direct credit transfers)	0.7	0.8	5.8	7.0	56,933	81,594
Total	**100.0**	**100.0**	**100.0**	**100.0**	**7,273**	**8,833**

[1] The discrepancy between the figures in this column with the corresponding column in Table 15.11 is due to rounding.

[2] Includes transactions processed through POSs, PIN pads, landlines, cell phones, kiosks, internet, and ATMs (excluding cash withdrawals).

[3] Includes only ordinary checks processed through the Interbank Clearing House and CHAKAVAK system, excluding intra-bank transactions.

Figure 15.3. Share of Non-cash Payment Instruments in Total Number of Non-cash Transactions in March 2022

(percent)

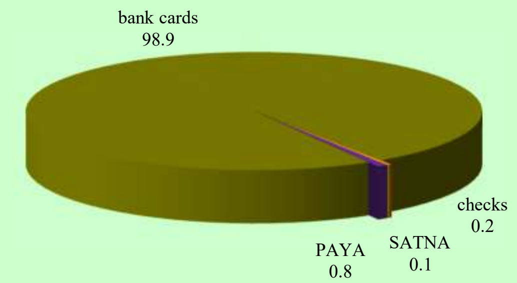

Figure 15.4. Share of Non-cash Payment Instruments in Total Value of Non-cash Transactions in March 2022

(percent)