

In line with its goal of optimizing payment processes, the CBI adopted significant measures in 2019/20, with respect to the identification and authentication of banking clients in the first step and issuance of permits for performing banking transactions in the following stages. Among the measures adopted were the initiation of various projects concerning the process of the identification of the banking network's clients, the improvement of the quality of information collected through the Electronic Banking Authentication System (NAHAB), and the activation of the system for dynamic (one-time) password generation for online payment purposes.

Furthermore, a working group was appointed to monitor banking transactions with the aim of maximizing transparency in the banking services as well as deepening supervision. In addition, in implementation of the "Amendment to the Law on Check Issuance", the CBI put on its agenda the oversight of systems related to the processing of checks, including the Bank-Wide Standard E-Checkbook Issuance (SAYAD) and the Infrastructure of Systematic and Electronic Processing of Checks (CHAKAVAK). With the devising of the Check Exchange Tracking System (PICHAK) and with the adoption of measures to monitor the procedures related to the issuance and distribution of digital checks, the CBI managed both to provide

value-added services and to prepare the ground for the full implementation of the abovementioned law.

14.1. Cash Payment

14.1.1. Banknotes and Coins

Banknotes and coins are well-known means of cash payment, needless of any special equipment. With the inclusion of Iran-Checks issued by the CBI, the approximate value of banknotes and coins issued by March 2020 amounted to Rls. 717.5 trillion. Banknotes and coins with the public (including the Iran-Checks of the CBI) rose 11.7 percent to reach Rls. 611.4 trillion in March 2020, up from Rls. 547.5 trillion in March 2019.

The share of the banknotes and coins with the public in GDP (at current prices) decreased by 0.3 percentage point compared with the year before to reach 2.3 percent in March 2020. The share of the banknotes and coins in M2 amounted to 2.5 percent, down by 0.4 percentage point compared with March 2019. Similarly, the share of the banknotes and coins in M1 decreased by 4.9 percentage points compared with March 2019, to reach 14.3 percent. The value of banknotes and coins with the public per capita amounted to Rls. 7,360 thousand, indicating an increase of 10.3 percent compared with the year before.

Table 14.1. Banknotes and Coins with the Public, Ratio to Macroeconomic Indicators

	Value (trillion rials)	Percentage change (annual)	Share in M1 (percent)	Share in M2 (percent)	Share in GDP ¹ (percent)	Value per capita (thousand rials)
March 2019	547.5	23.7	19.2	2.9	2.6	6,670
March 2020	611.4	11.7	14.3	2.5	2.3	7,360

¹ At current prices.

14.1.2. Sight Deposits

Total value of sight deposits reached Rls. 3,661.6 trillion in March 2020, up by 58.9 percent compared with March 2019. The share of sight deposits in M1 was 85.7 and in M2, 14.8 percent. Meanwhile, the share of the banknotes and coins in GDP was 13.8 percent at current prices. Sight deposits per capita increased by 57.0 percent to Rls. 44,076 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 49.8 percent from Rls. 2,852.3 trillion in March 2019 to Rls. 4,273.0 trillion in March 2020.

14.2. Check Settlement System

The implementation of CHAKAVAK in 2014 and its gradual replacement for the Interbank Clearing House by month June 2015 paved the way for the execution of check clearance solely via CHAKAVAK as of 2016. The number of checks channeled via CHAKAVAK reached 101.5 million in March 2020, down by 7.5 percent compared with March 2019. The value of these checks reached Rls. 30,531.7 trillion, showing a

decrease of 23.4 percent. Therefore, the average value per transaction decreased by 17.2 percent to about Rls. 300.8 million, when compared with roughly Rls. 363.4 million in March 2019. The number of transactions per capita was 1.2 and the value of transactions per capita was Rls. 367.5 million. The ratio of the value of check transactions to GDP was 1.2 at current prices, indicating a decrease compared with the respective figure in the year before (1.9).

14.3. Electronic Payment Systems

14.3.1. Expansion of Electronic Payment Instruments

In March 2020, the number of cards issued by the banking network decreased by 1.1 percent to 334.7 million. Out of the total number of cards, 228 million were debit cards (68.0 percent), 104 million (31.0 percent) were prepaid cards (purchase and gift cards), and merely 3 million (1.0 percent) were credit cards. The number of issued cards per capita decreased by 0.1 point, from 4.1 cards in March 2019 to 4.0 cards in March 2020.

Table 14.2. Sight Deposits, Ratio to Macroeconomic Indicators

	Value (trillion rials)	Percentage change (annual)	Share in M1 (percent)	Share in M2 (percent)	Share in GDP ¹ (percent)	Value per capita (thousand rials)
March 2019	2,304.8	53.2	80.8	12.2	11.0	28,079
March 2020	3,661.6	58.9	85.7	14.8	13.8	44,076

¹ At current prices.

Table 14.3. Transactions Processed through Checks

	Number (million)		Percentage change	Value (trillion rials)		Percentage change
	March 2019	March 2020		March 2019	March 2020	
CHAKAVAK	109.7	101.5	-7.5	39,878.1	30,531.7	-23.4

The number of ATMs rose by 5.7 percent to 59,447, that of PIN pads (electronic devices used in debit, credit, or smart card-based transactions within bank branches) fell by 1.4 percent to 70,138, and that of POSs surged by 4.3 percent to 6,556 thousand. The ratios of issued cards to ATMs, PIN pads, and POSs were respectively 5,630, 4,772 and 51.

14.3.2. Development of Electronic Transactions

In March 2020, the total number and value of electronic transactions reached 34,238 million and Rls. 74,244 trillion, respectively. The number of electronic transactions processed through the ATMs increased by 5.1 percent and that of the POSs grew by 22.2 percent. Accordingly, the

value of transactions processed through the ATMs increased by 23.3 percent, and that of POSs rose by 21.4 percent. The number and value of PIN pad transactions increased by respectively 11.1 and 20.7 percent. Moreover, the number and value of transactions processed through cell phones, landlines, kiosks, and internet rose 29.3 and 39.5 percent, respectively. The total number of transactions per card was 102.3 in March 2020, indicating a rise when compared with 84.3 transactions in March 2019. The ratio of the number of ATM transactions to each ATM was 91,762 in March 2020. This ratio was 3,605 for POS and 5,004 for PIN pad transactions. In March 2020, the ratio of the value of transactions to their number totaled Rls. 2,912 thousand, Rls. 1,206 thousand, and Rls. 55,368 thousand per ATM, POS, and PIN pad, respectively.

Table 14.4. Number of Electronic Payment Instruments

	March		Percentage change
	2019	2020	
Bank cards (million)	338.5	334.7	-1.1
ATM (thousand)	56.3	59.5	5.7
POS (thousand)	6,287.2	6,556.8	4.3
PIN pad (thousand)	71.1	70.1	-1.4

Table 14.5. Bank Cards

	Number (million)		Growth (percent)	Share (percent)		Change in share (percentage points)
	March 2019	March 2020		March 2019	March 2020	
Debit cards	227	228	0.4	67.0	68.0	1.0
Credit cards	3	3	28.3	0.8	1.0	0.2
Prepaid cards	109	104	-5.0	32.2	31.0	-1.2

Table 14.6. Electronic Transactions Processed through the Banking Network

	Number (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	March 2019 ▲	March 2020		March 2019 ▲	March 2020	
ATM	5,189	5,455	5.1	12,885	15,885	23.3
POS	19,342	23,638	22.2	23,482	28,498	21.4
PIN pad	316	351	11.1	16,104	19,434	20.7
Cell phone, landline, kiosk, and internet	3,707	4,794	29.3	7,476	10,427	39.5
Total	28,553	34,238	19.9	59,946	74,244	23.9

ATMs had shares by respectively 15.9 and 21.4 percent in the total number and value of electronic transactions processed through the banking network in March 2020. Meanwhile, POSs enjoyed shares of respectively 69.0 and 38.4 percent in the total number and value of electronic transactions.

The shares of transactions processed through the ATMs and PIN pads decreased by about 2.2 and 0.1 percentage points in terms of number by March 2020, while the shares of the number of POSs and "landlines, cell phones, kiosks, and internet" in all transactions rose by 1.3 and 1.0 percentage points, respectively. This showed the growing public tendency towards the wider use of new electronic payment instruments in daily transactions.

PIN pads enjoyed shares of respectively 1.0 and 26.2 percent in the total number and value of electronic transactions in March 2020. 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 both the number and value of electronic transactions was 14.0 percent.

14.3.3. 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 95.7 percent and in the total value, 76.3 percent. This indicated a slight rise when compared with the corresponding figures in the year before (95.6 and 76.1 percent). The numbers of the ATM and POS transactions processed via the SHETAB center increased by 1.9 and 22.1 percent to 4,234 million and 23,633 million, respectively.

The value of SHETAB transactions via ATMs and POSs reached Rls. 12,535 trillion and Rls. 28,498 trillion in March 2020, showing increases by respectively 21.6 and 21.3 percent compared with March 2019. POSs had the highest shares of the number and value of SHETAB transactions by 72.1 and 50.3 percent, respectively. The total number of transactions processed via the SHETAB center topped 32,768 million, worth Rls. 56,614 trillion. This indicated increases by 20.0 and 24.0 percent, respectively, compared with the year before.

Figure 14.1. Share of Electronic Payment Instruments in Total Number of Electronic Transactions in March 2020

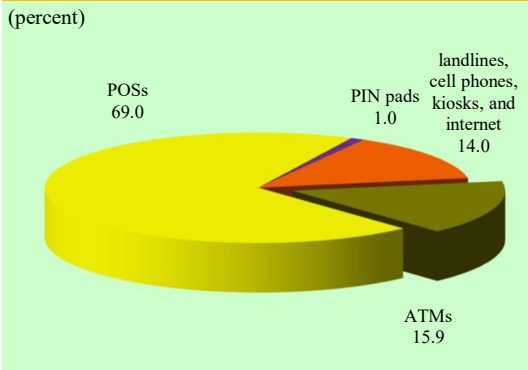


Figure 14.2. Share of Electronic Payment Instruments in Total Value of Electronic Transactions in March 2020

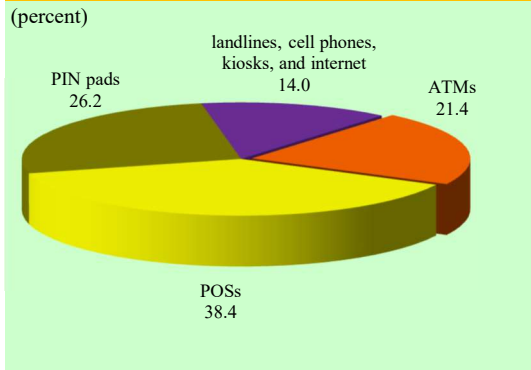


Table 14.7. Interbank Transactions Processed through SHETAB

	Number (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	March 2019	March 2020		March 2019	March 2020	
ATM	4,156	4,234	1.9	10,307	12,535	21.6
POS	19,348	23,633	22.1	23,495	28,498	21.3
Other (landline, cell phone, kiosk, internet, and branches)	3,802	4,901	28.9	11,845	15,581	31.5
Total¹	27,307	32,768	20.0	45,647	56,614	24.0

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

14.4. Electronic Settlement Systems

14.4.1. 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 3,041 million, worth Rls. 22,849 trillion, in March 2020. A total of 1,426 million fund transfers, valued at Rls. 10,844 trillion, were processed via the ATMs connected to SAHAB, showing growth rates of 11.6 and 23.6 percent in terms of number and value, respectively. Furthermore, 93 million SAHAB transactions, worth Rls. 5,149 trillion, were processed through PIN pads, up by 14.0 percent in terms of number and 17.9 percent in terms of value. The number of SAHAB transactions via the "kiosks and internet" was 1,522 million with a value of Rls. 6,857 trillion, up by 42.9 percent in terms of number and 37.8 percent in terms of

value. The shares of ATMs, PIN pads, and "kiosks and internet" were respectively 46.9, 3.0 and 50.1 percent in the total number and 47.5, 22.5 and 30.0 percent in the total value of SAHAB transactions. Thus, the expansion of the use of electronic money orders in the future is well expected.

14.4.2. 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, rose by 70.6 percent to 33.3 million in March 2020. The value of transactions processed via SATNA reached Rls. 205,099 trillion, indicating a growth rate of 35.1 percent compared with March 2019. The number of customer-to-customer transactions processed through SATNA increased by 71.5 percent to 32.9 million, with their value increasing by 62.5 percent to Rls. 58,643 trillion.

Table 14.8. Transactions Processed through SAHAB

	Number (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	March 2019	March 2020		March 2019	March 2020	
ATM	1,278	1,426	11.6	8,773	10,844	23.6
PIN pad	81	93	14.0	4,365	5,149	17.9
Kiosk and internet	1,065	1,522	42.9	4,975	6,857	37.8
Total	2,424	3,041	25.4	18,113	22,849	26.1

The number of clearing settlement systems operating via SATNA fell by 0.1 percent to 201 thousand, while their value increased by 4.7 percent to reach Rls. 80,497 trillion. The number and value of bank-to-bank transactions increased by respectively 47.6 and 70.0 percent compared with March 2019, reaching 217 thousand transactions worth Rls. 65,959 trillion. In March 2020, the customer-to-customer transactions accounted for the highest share in the number of transactions processed through SATNA by 98.7 percent. The highest share in the value of transactions processed via SATNA was related to the clearing settlement systems by 39.2 percent.

14.4.3. PAYA

The Automated Clearing House System (known in Iran as 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), 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 2020, about 214 million banking transactions worth Rls. 9,877 trillion were processed through PAYA in the form of direct credit transfers, indicating growth rates of 45.2 and 44.1 percent in terms of number and value, respectively. Meanwhile, a total of 1,607 million transactions, with a value of Rls. 31,743 trillion, were processed via SHAPARAK. Thus, the total number of PAYA transactions was 1,821 million, with a value of Rls. 41,620 trillion, indicating increases of 28.2 and 28.1 percent, respectively.

Table 14.9. Transactions Processed through SATNA

	Number (thousand)		Growth (percent)	Value (trillion rials)		Growth (percent)
	March 2019	March 2020		March 2019	March 2020	
Bank-to-bank transactions	147	217	47.6	38,796	65,959	70.0
Customer-to-customer transactions	19,188	32,904	71.5	36,097	58,643	62.5
Clearing settlement systems	201	201	-0.1	76,874	80,497	4.7
Total¹	19,536	33,322	70.6	151,767	205,099	35.1

¹ Excludes CBI's intraday liquidity facility and settlements.

Table 14.10. Transactions Processed through PAYA

	Number (million)		Growth (percent)	Value (trillion rials)		Growth (percent)
	March 2019	March 2020		March 2019	March 2020	
Direct credit transfers	148	214	45.2	6,853	9,877	44.1
SHAPARAK	1,273	1,607	26.3	25,635	31,743	23.8
Total	1,420	1,821	28.2	32,489	41,620	28.1

14.4.4. SIMA

Upon the launching of the Scripless Securities Settlement System (TABAS) 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. 11.5 trillion worth of electronic participation papers was issued via the SIMA system by Mashhad and Isfahan municipalities by March 2020, to be sold by Shahr and Industry and Mine agent banks. Furthermore, Rls. 651.7 trillion worth of securities in the form of electronic general CDs was issued by Tejarat, Middle East, Melli, Keshavarzi, Saderat, Parsian, Iran Zamin, Maskan, Tose'e Ta'avon, Mellat, Sepah, Sina, Shahr, and Pasargad banks.

14.5. Total Value of Transactions

In March 2020, the nominal value of transactions in the banking network, processed through both electronic payment instruments and checks, increased by 21.4 percent compared with March 2019, to reach Rls. 173,295 trillion. The real value of transactions, considering the increase in the CPI of goods and services, fell by 14.1 percent. Due to their unrestricted circulation frequency, the banknotes and coins with the public as well as the Iran-Checks of the CBI were not included in calculations. The share of the value of check transactions in all electronic transactions decreased by 10.3 percentage points to 17.6 percent. However, the share of the value of electronic payment instruments and systems in total rose by 10.3 percentage points to reach 82.4 percent. The value of transactions through PIN pads increased by 20.7 percent, while the share of

the value of PIN pad transactions in total fell by 0.1 percentage point compared with March 2019. However, the value as well as the share of the value of transactions processed through ATMs and "landlines, cell phones, kiosks, and internet" increased. The value of transactions processed via POSs increased by 21.4 percent and the share of POS transactions in the total value remained unchanged at 16.4 percent. Data on transactions processed through electronic payment systems indicate that the share of the value of customer-to-customer transactions processed via SATNA increased from 25.3 percent in March 2019 to 33.8 percent in March 2020 (enjoying the highest share as in March 2019). The value of PAYA transactions (direct credit transfers), with a rise of 44.1 percent, accounted for 5.7 percent of the total value of transactions in March 2020.

14.6. 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 2020. PAYA, SATNA, and checks constituted respectively 0.7, 0.1 and 0.3 percent of the number of non-cash transactions, totaling 1.1 percent. Of the total value of non-cash transactions, bank cards constituted the highest share by 42.3 percent and PAYA held the lowest share by 5.8 percent. The average value of each transaction settled via SATNA reached Rls. 1,782 million and that settled through PAYA topped Rls. 46 million. The share of checks in the total value of non-cash transactions was 17.8 percent. The average value of each transaction processed through checks was Rls. 300.7 million in March 2020, which was higher than the average value of transactions processed via PAYA and bank cards.

Table 14.11. Transactions Processed through the Banking Network

	Value (trillion rials)		Growth (percent)	Share in growth (percentage points)	Share in total value of transactions (%)		Change in share (percentage points)
	2018/19 ▲	2019/20			2018/19	2019/20	
Checks¹	39,878	30,532	-23.4	-6.5	27.9	17.6	-10.3
Electronic payment instruments and systems	102,897	142,763	38.7	27.9	72.1	82.4	10.3
Electronic payment instruments	59,946	74,244	23.9	10.0	42.0	42.8	0.9
ATM	12,885	15,885	23.3	2.1	9.0	9.2	0.1
POS	23,482	28,498	21.4	3.5	16.4	16.4	0.0
PIN pad	16,104	19,434	20.7	2.3	11.3	11.2	-0.1
Landline, cell phone, kiosk, and internet	7,476	10,427	39.5	2.1	5.2	6.0	0.8
Electronic payment systems	42,950	68,520	59.5	17.9	30.1	39.5	9.5
SATNA (customer-to-customer)	36,097	58,643	62.5	15.8	25.3	33.8	8.6
PAYA (direct credit transfers)	6,853	9,877	44.1	2.1	4.8	5.7	0.9
Total (nominal)	142,775	173,295	21.4	N/A	100.0	100.0	N/A
Total (real)²	99,287	85,283	-14.1	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 (2016/17=100).

In March 2020, the share of checks in the total value of non-cash transactions decreased by 10.4 percentage points. The total share of bank cards, PAYA (direct

credit transfers), and SATNA (customer-to-customer transactions), on the other hand, increased by about 10.4 percentage points compared with the year before.

Figure 14.3. Share of Non-cash Payment Instruments in Total Number of Non-cash Transactions in March 2020

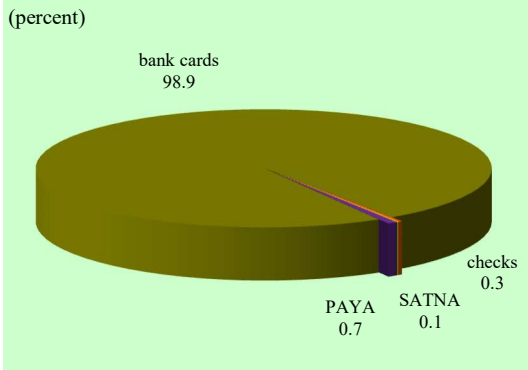


Figure 14.4. Share of Non-cash Payment Instruments in Total Value of Non-cash Transactions in March 2020

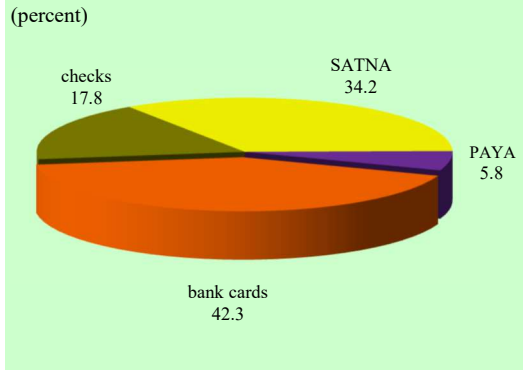


Table 14.12. Share of Non-cash Payment Instruments in Total Number and Value of Non-cash Transactions

	Share in total number (percent)		Share in total value (percent)		Average value per transaction (thousand rials)	
	March 2019	March 2020	March 2019	March 2020	March 2019	March 2020
Bank cards ¹	99.0	98.9	41.3	42.3	2,203	2,255
Checks ²	0.4	0.3	28.2	17.8	363,441	300,764
SATNA (customer-to-customer)	0.1	0.1	25.6	34.2	1,881,211	1,782,262
PAYA (direct credit transfers)	0.6	0.7	4.9	5.8	46,417	46,077
Total	100.0	100.0	100.0	100.0	5,273	5,273

¹ Includes transactions processed through POSs, PIN pads, landlines, cell phones, kiosks, internet, and ATMs (excluding cash withdrawals). ² Includes only ordinary checks processed through the Interbank Clearing House and CHAKAVAK system, excluding intra-bank transactions.