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# Payment Cards and Card Transactions

Payment Statistics

**2020**

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## Overview of the cards market of the Republic of Croatia

### Payment card issuers

**21** credit institutions  
**2** electronic money institutions

### Payment transaction acquirers

**14** credit institutions  
**2** electronic money institutions  
**2** payment institutions

### Card schemes (in alphabetic order)

Four-party card schemes

- MasterCard®
- Visa®

Three-party card schemes

- Diners Club International®

## Basic statistics of the Republic of Croatia

### Population/business entities

Population: **4,047.2** million  
Registered legal entities: **0.293** million  
Crafts and trades and freelance occupations: **87,771**  
Surface: **56,594** km<sup>2</sup>

### Number of cardholders

Consumers: **3.446** million  
Business entities (non-consumers): **0.240** million

### Number of payment cards

Debit: **6.924** million  
Credit: **1.855** million

### National card payments (issuers in the RC)

Number: **492.52** million  
Value: HRK **167,470.08** million

### Infrastructure

EFTPOS terminals: **107,654**  
ATMs: **4,894**

### Payment instruments (purchase of goods and services – fiscalisation)

Number:  
**78%** cash  
**21%** payment card  
**1%** other

Value:  
**50%** cash  
**45%** payment card  
**5%** other

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# 1 Introduction

The payment cards market is one of the most complex and diverse financial markets in the world. In the era of globalisation, a clear and transparent legal framework for payment services has been introduced in the payments market throughout the European Economic Area. One of the payment services that have been particularly regulated is the service of the issuing of payment cards and the acquiring of payment transactions. A card-based payment transaction is a complex process, which includes many interconnected participants: payment service providers, institutions and systems. It is not possible to analyse only one component without considering its effect on each of the remaining links in the card transaction chain. Globally, card transactions demonstrate the development of several trends, such as an increase in standardisation, the separation between the “scheme” management (the rules of the system) and the services of transaction processing, enhanced oversight and rules in the legislative part and an intensified promotion and growth in the offer of services by all participants in card transactions.

The number and value of cashless and cash payments in the Republic of Croatia (hereinafter referred to as “RC”) have been increasing constantly for the past several years. The increase in cashless payment transactions has also been strongly driven by the payment card, which has continued to be the most frequently used payment instrument, as a result of which the number and the volume of transactions continued to rise in the cards market of the RC. The number and value of payment card-based transactions have grown over the past five years at the average annual rates of 8.1% and 6.7% respectively.

However, in recent years the cards market has also witnessed significant changes brought about by technologies and functionalities, including the increase in the number of issued contactless payment cards. If compared with the number of contactless payment cards issued in the RC in 2019, their number increased considerably in 2020 by as much as 59.47%, recording 5,670,596 contactless payment cards issued on 31 December 2020, or 65% of the total number of payment cards issued in the market of the RC.

The increase in the number of contactless payment cards was also a result of the widespread infrastructure that enables the initiation of contactless payments. An example of this is the figure that over 80% of the total number of active EFTPOS terminals in the RC enabled the

initiation of contactless payments to the holders of cashless payment cards. At the same time, the first contactless ATMs were introduced in March 2017, when there were 111 of them. On 31 December 2020, 1,112 contactless ATMs were recorded, accounting for 22% of the total number of ATMs in the RC.

As regards card transactions in 2020, it is also important to mention the COVID-19 pandemic that affected the increase in the number and value of transactions executed through the Internet using payment cards and that also had an impact on the tourist season, which was reflected in smaller consumption and payments by foreign payment cards.

In addition, as a result of the continuing growth of card payments and the increasing number of card technology-based alternative payment methods, the share of card payments has been growing at a slow but steady pace relative to the share of cash payments in the last few years. According to statistical data, 78% of the number of fiscalised invoices in the RC involves cash payments, while card-based payments account for 21%. Cash payments account for 50% and payments by payment cards account for 45% of the value of transactions of fiscalised invoices.

With the increase in card payments and the rise of alternative payment methods, the future of cash is constantly under discussion.

The purpose of this publication is to provide a comprehensive overview of the payment cards and card-based payment transactions market in the RC in 2020, with a comparison of the data with those for 2019, which should be equally useful to the users, payment service providers and the public in general.

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## 1.1 Structure of the publication

The publication is divided into seven chapters.

The first chapter is the Introduction, which gives, in addition to the purpose and structure of the publication, a brief overview of the legal framework from which statistical data and basic methodological explanations have been collected.

The second chapter, under the title of ‘Structure of the cards market and payments infrastructure’, gives an insight into the models of card schemes and an overview of the basic accepting devices for payment cards (ATMs and EFTPOS terminals).

The third chapter, Payment cards market in the RC, provides data on the number of payment cards and the degree of their technological development.

Card-based payment transactions, the fourth chapter, gives an insight into data submitted by payment service providers – issuers for all national and international card-based payment transactions made using payment cards, issued by these same issuers.

The fifth chapter, Acquiring of payment transactions, provides insight into data submitted by payment service providers – acquirers for all transactions of the acquiring of card-based payment transactions executed with the payment cards of national and international issuers in the RC in kuna. A comparison of the use of payment cards and cash in the RC is also given.

The sixth chapter is a glossary.

The seventh chapter contains a list of tables, figures, charts and boxes from the publication.

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## 1.2 Legal framework

The Republic of Croatia has completely aligned its legislation with the acquis in the area of payment operations. Through the Payment System Act (hereinafter referred to as ‘PSA’) payment services in the RC are regulated in the same way as in the rest of the EU. Thus, the services of payment card issuing and the acquiring of payment transactions are among the defined payment services.

Statistical data on payment cards, card-based payment transactions and accepting devices for payment cards are collected according to the Decision on the obligation to submit data on the payment system and electronic money (Official Gazette 147/2013 and 16/2017; hereinafter referred to as ‘Decision’), which entered into force on 1 January 2014. The Decision prescribes the obligation of reporting to the Croatian National Bank (hereinafter referred to as ‘CNB’) on data with regard to the payment system and electronic money, as well as about the content and manner of such reporting and reporting deadlines.

The Decision prescribes the scope of the data and the reporting entities. In addition to data on national payment transactions, data on international payment transactions are also collected, and the reporting period is a month.



Pursuant to the Decision, the reporting entities are the following:

1. credit institutions (banks and savings banks) with head offices in the RC;
2. electronic money institutions with head offices in the RC;
3. payment institutions with head offices in the RC;
4. branches of third-country credit institutions (or branches of banks) with head offices in the RC;
5. branches of third-country electronic money institutions with head offices in the RC;
6. branches of credit institutions from other member states with head offices in the RC;
7. branches of electronic money institutions from other member states with head offices in the RC;
8. branches of payment institutions from other member states with head offices in the RC;
9. agents of payment service providers from other member states with head offices in the RC, through which these payment service providers provide payment services in the RC, provided that these agents have been authorised to provide payment services; and
10. the Financial Agency.

The Decision prescribes the compilation and submission of data on the payment system and electronic money through 11 Reports:

- Credit transfer report;
- Money remittance report;
- Direct debit report;
- Credits to/debits from the accounts by simple book entry report;
- Cash report;
- Cheques and bills of exchange report;
- Issuing of payment cards report;
- Accounts report;
- Infrastructure report;
- Acquiring of payment cards report; and
- Legal authority report.

The publication gives an overview of payment cards and card-based payment transactions for 2020 and includes a comparison of the data with those for 2019, 2018, 2017, 2016 and partially for 2015, through statistical data collected in three reports: Issuing of payment cards report, Acquiring of payment cards report and Infrastructure report.



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## 1.3 Methodology

The methodology of collecting data in accordance with the Decision is based on predefined terms, which are harmonised with legal provisions, the ECB's Regulation (EU) No 1409/2013 of 28 November 2013 on payment statistics (ECB/2013/43)<sup>1</sup> and other standards accepted in the cards market.

It was data obtained from payment service providers (reporting entities) that were primarily used in preparing the publication. A much smaller share of data was collected from business entities – providers of card infrastructure services (Sub-chapter 2.2) and from the Ministry of Finance of the Republic of Croatia – Tax Administration (Sub-chapter 5.2).

The payment service providers (reporting entities), whose data were used in the preparation of the publication include:

1. credit institutions (banks) that have obtained authorisation from the CNB, which includes authorisation to provide the payment services of the issuing of payment cards and the acquiring of transactions executed using payment cards;
2. electronic money institutions<sup>2</sup> that have obtained authorisation from the CNB to provide the payment services of the issuing of payment cards and the acquiring of payment transactions executed using payment cards; and
3. payment institutions that have obtained authorisation from the CNB to provide the payment services of acquiring payment transactions executed using payment cards.

The publication provides a complete overview of the cards market in the RC for 2020, that is, it presents aggregated statistical data on:

- payments infrastructure – shown with the balance at the end of the last day of the reporting period (month);
- payment cards – shown at a monthly level or with the balance at the end of the last day of the reporting period (month);
- card-based payment transactions – shown at a monthly or an annual level;
- transactions of the acquiring of payment transactions executed using payment cards – shown at a monthly or an annual level.

<sup>1</sup> Regulation (EU) No 1409/2013 of the European Central Bank of 28 November 2013 on payment statistics (ECB/2013/43).

<sup>2</sup> Not including data submitted by electronic money institutions that at the same time carry out the activity of telecommunications services.

Data on card-based payment transactions are collected in the original currency, i.e. in the currency in which the transaction takes place (transaction currency). For the purposes of the publication, all transactions in other currencies are recalculated in kuna at the CNB's midpoint exchange rate on the last day of the reporting period. Data on the par value of transactions are shown in kuna without lipa.

Detailed methodological explanations related to the individual terms of the Report are given in each chapter separately.

The basic terms defined by the PSA, which refer to the area of payment cards and card-based payment transactions, are the following:

- **'payment card'** means a device enabling its holder to make payments for goods and services either through an accepting device for payment cards or remotely, and/or to withdraw cash and/or use other services at an ATM or another self-service device and to transfer funds and which enables payment transaction initiation and its execution within a card payment scheme;
- **'national payment transaction'** means a payment transaction the execution of which involves a payer's payment service provider and a payee's payment service provider, or only one payment service provider, operating in the RC;
- **'international payment transaction'** means a payment transaction the execution of which involves two payment service providers, one of which (of either the payee or the payer) operates in the RC, while the other payment service provider (of either the payer or the payee) operates in a third country or another member state;
- **'card payment scheme'** means a set of functions, procedures, rules and devices enabling the holder of a payment card to effect a payment and/or a cash withdrawal transaction with a payment service provider.

## 2 Structure of the cards market and payments infrastructure

This chapter shows card payment schemes (Sub-chapter 2.1) and payments infrastructure by accepting devices for payment cards, such as ATMs and EFTPOS terminals (Sub-chapter 2.2).

**Box 1** Distribution of terminals in the RC on 31 December 2020



### ATMs and EFTPOS terminals in the RC

Total number of ATMs	4,894
Total number of EFTPOS terminals	107,654
Number of ATMs on 100,000 inhabitants	120.92
Number of EFTPOS terminals on 100,000 inhabitants	2,659.96
Number of ATMs per km <sup>2</sup>	0.09
Number of EFTPOS terminals per km <sup>2</sup>	1.90

Source: CNB.

## 2.1 Card payment schemes

‘Card payment scheme’ means a set of functions, procedures, rules and devices enabling the holder of a payment card to effect a card-based payment transaction and/or cash withdrawal with a payment service provider.

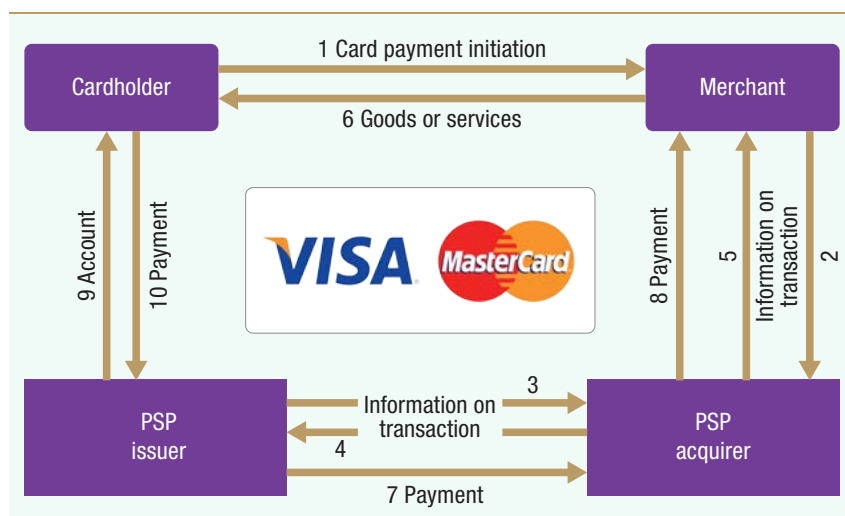
In the RC, two models of card schemes are recognised: the model with four stakeholders, i.e. the four-party card scheme and the model with three parties or stakeholders, i.e. the three-party card scheme.

### Four-party card scheme in the RC

In the four-party card scheme in the RC the stakeholders are: the cardholder – payer, the merchant – payee, the payment service provider as the payment card issuer (hereinafter referred to as ‘issuer’) and the payment service provider as the payment card acquirer (hereinafter referred to as ‘acquirer’).

- **Cardholder – payer:** consumer and/or non-consumer, i.e. a natural and/or legal person initiating a card-based payment transaction using a payment card.
- **Merchant – payee:** legal or natural person acquiring a payment transaction executed using the issuers’ payment card that has established an agreement with the acquirer.
- **Issuer:** payment service provider that has issued the cardholder (payer) with the payment card that serves to initiate card-based payment transactions.

**Chart 1** Four-party card scheme in the RC



Note: The figure shows the course of a card-based payment transaction between the cardholder, the merchant, the acquirer and the issuer at a physical point of sale (EFTPOS terminal) with the presence of the cardholder.

Source: CNB.

- **Acquirer:** payment service provider that provides the acquiring of a payment transaction executed using a payment card and the processing of a card-based payment transaction for the payee (merchant), which results in the transfer of cash to the payee (merchant).

**The course of execution of a card payment in the four-party card scheme** involving the cardholder, the merchant, the acquirer and the issuer at a physical point of sale, i.e. EFTPOS terminal with the physical presence of the cardholder:

1. The cardholder uses a payment card at a merchant's to initiate a card payment for the purchase of goods or services.
2. The cardholder initiates a card-based payment transaction to the acquirer at an EFTPOS terminal, through the merchant, i.e. data are transmitted to the acquirer through the EFTPOS terminal.
3. The acquirer forwards the data on the transaction to the issuer for authorisation.
4. The issuer verifies and authorises the transaction and notifies the acquirer about it.
5. After receiving the authorisation from the issuer, the acquirer notifies the merchant about it through the EFTPOS terminal.
6. After the transaction has been authorised, the merchant delivers the goods and services to the cardholder.
7. The issuer forwards the amount to the acquirer for the purchase of goods or services carried out through a payment card.
8. The acquirer makes funds available to the merchant.
9. The issuer sends data on the cost of the transaction made through the payment card to the cardholder.
10. The cardholder settles the obligation for the transaction made through the payment card.

Currently, MasterCard® and Visa® four-party card schemes operate in the territory of the RC. Both debit and credit payment cards are issued in the four-party card scheme. In 2020, in all, 21 issuers/stakeholders in the four-party card scheme were recorded.

### Three-party card scheme in the RC

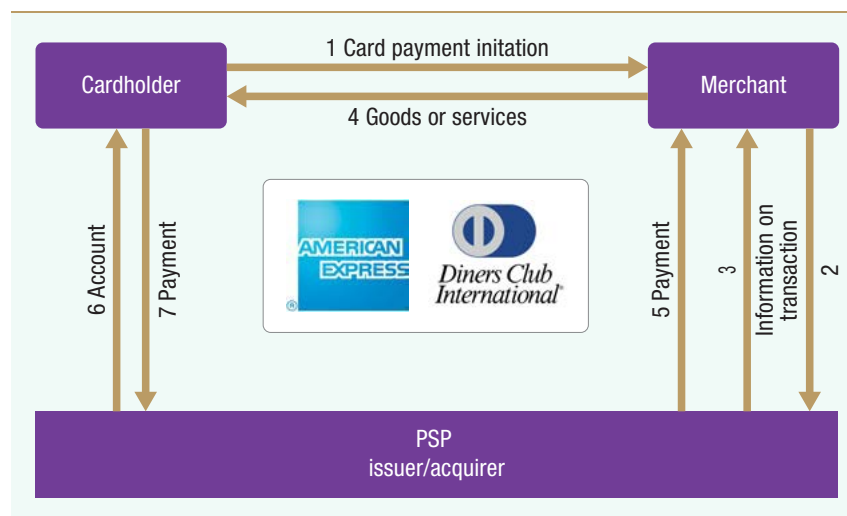
In the three-party card scheme in the RC the stakeholders are: the cardholder – payer, the merchant – payee, the payment service provider as the payment card issuer (hereinafter referred to as ‘issuer’), which is at the same time the payment service provider as the acquirer of a payment transaction executed using a payment card (hereinafter referred to as ‘acquirer’).

- **Cardholder – payer:** consumer and/or non-consumer, i.e. a natural and/or legal person initiating a card transaction using a payment card.
- **Merchant – payee:** legal or natural person – payee, acquiring a payment transaction executed using issuers’ payment cards that has established an agreement with the acquirer.
- **Issuer/acquirer:** in the three-party card scheme, the same payment service provider is the issuer and the acquirer.

As the issuer, the payment service provider is bound by a contract with the cardholder, and it has issued the cardholder (the payer) with a payment card, which serves for initiating card-based payment transactions.

As the acquirer, the payment service provider is bound by a contract with the payee (merchant), to whom it ensures the acquiring of the payment transaction executed using a payment card and the processing of the card-based payment transaction, which results in the transfer of funds to the payee (merchant).

**Chart 2** Three-party card scheme in the RC



Note: The figure shows the course of a card-based payment transaction between the cardholder, the merchant, the issuer that is at the same time the acquirer at a physical point of sale (EFTPOS terminal) with the physical presence of the cardholder.

Source: CNB.

**The course of execution of a card payment in a three-party card scheme** involving the cardholder, the acquirer and the issuer at a physical point of sale, i.e. EFTPOS terminal with the physical presence of the cardholder:

1. The cardholder uses a payment card at a merchant’s to initiate a card payment for the purchase of goods or services.
2. The cardholder initiates a card-based payment transaction to the acquirer at an EFTPOS terminal, through the merchant, i.e. data are transmitted to the acquirer through the EFTPOS terminal.

3. The issuer/acquirer verifies and authorises the transaction and notifies the merchant about it through the EFTPOS terminal.
4. After the transaction has been authorised, the merchant delivers the goods and services to the cardholder.
5. The issuer/acquirer makes funds available to the merchant.
6. The issuer/acquirer sends data on the cost of the transaction made through the payment card to the cardholder.
7. The cardholder settles the obligation for the transaction made through the payment card.

Three-party card schemes are usually credit card schemes and no debit cards are issued under them. One payment service provider – stakeholder in the three-party scheme was recorded in 2020. Diners Club International® is the three-party card scheme in the territory of the RC.

## 2.2 Payments infrastructure

Data on the payments infrastructure are collected from payment service providers and from legal persons that are the owners of accepting devices for payment cards (EFTPOS terminals and ATMs) through which payment service providers – acquirers provide the payment service of acquiring payment transactions using payment cards.

In the market of the RC, on 31 December 2020, there were 113,230 terminals at which payment transactions executed using payment cards are acquired, of which 4,894 were ATMs, 107,654 EFTPOS terminals and 682 EFTPOS terminals for withdrawal and deposit that allow cardholders to initiate only the payment transactions of withdrawal and/or deposit of cash through a payment card, but not the payment of goods and services (Table 1).

**Table 1** Total number of terminals acquiring payment cards in the RC

Accepting terminals	Total on 31 Dec. 2016	Total on 31 Dec. 2017	Total on 31 Dec. 2018	Total on 31 Dec. 2019	Total on 31 Dec. 2020
ATMs	4,543	4,941	5,159	5,446	4,894
EFTPOS terminals	106,081	118,621	114,361	111,172	107,654
EFTPOS terminals for withdrawal and deposit	936	905	967	940	682

Source: CNB.



## ATM

An ATM is an electromechanical terminal allowing cardholders to make cash withdrawals and/or deposits and to use the service of providing information and other services.

On 31 December 2020, 4,894 ATMs were recorded in the RC. The largest number of ATMs was recorded in the City of Zagreb (1,070) and the smallest number of ATMs in Požega-Slavonia County (49) (Table 2). The total number of ATMs in the RC had decreased by 10% from 31 December 2019 (Table 1).

**Table 2** Number of ATMs by counties in the RC  
on 31 December 2020

County	Total number of ATMs
County of Zagreb	221
Krapina-Zagorje	110
Sisak-Moslavina	113
Karlovac	114
Varaždin	137
Koprivnica-Križevci	68
Bjelovar-Bilogora	76
Primorje-Gorski kotar	438
Lika-Senj	72
Virovitica-Podravina	56
Požega-Slavonia	49
Slavonski Brod-Posavina	99
Zadar	307
Osijek-Baranja	254
Šibenik-Knin	186
Vukovar-Srijem	114
Split-Dalmatia	695
Istria	375
Dubrovnik-Neretva	243
Medimurje	97
City of Zagreb	1,070
<b>Total</b>	<b>4,894</b>

Source: CNB.

ATMs can be broken down by functions and features.

ATM functions are divided by their payment services, i.e. by the function of cash deposit and the function of cash withdrawal.

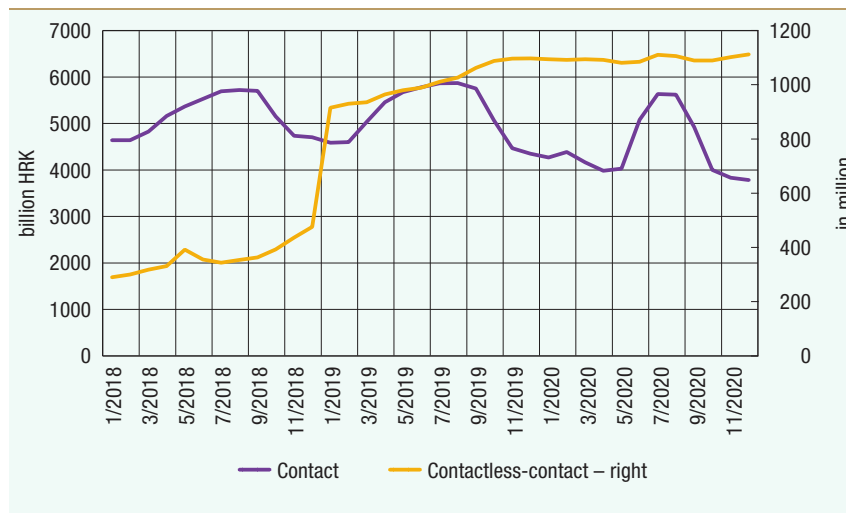
The breakdown of ATMs by functions also shows the data on ATMs that allow users to use different services, such as the review of payment account transactions, the purchase of vouchers, the use of electronic banking, etc., but at which it is not possible to effect the payment

services of cash deposits, cash withdrawals and execution of credit transfers. For the purposes of the publication, such an ATM is called a ‘terminal’.

According to their functions, we can distinguish six types of ATM in the territory of the RC: 4,074 withdrawal ATMs, 594 deposit-withdrawal ATMs, 1 terminal, 114 deposit ATMs, 110 deposit-withdrawal transaction ATMs and 1 transaction ATM.

On 31 December 2020, of the total number of ATMs, 1,245 of them were covered by a video surveillance system and 660 were in a secure location. ATMs in a secure location are ATMs located in a special area enclosed for that purpose, physical access being secured by the application of adequate measures of physical and/or technical protection. An ATM can be categorised in both of the above features.

**Figure 1** Number of ATMs in the RC



Note: Data refer to the balance on the last day of each reporting month.  
Source: CNB.

It can be concluded from the total number of ATMs in the RC presented above that their number varies depending on the season, that is, their number increases significantly in the summer months during the tourist season. However, due to the worsened epidemiological situation in 2020, their number decreased additionally after the tourist season, so that in October 2020, the number of ATMs was 10% lower than in the same month of 2019. Data shown in Figure 1 also point to an upward trend in the number of contactless-contact ATMs from 2019, that is, the ATMs that only require the card to be tapped on a contactless-enabled card reader and the PIN to be entered within a limited time. Naturally, the described possibility is only available to the users of cards with the contactless functionality, currently almost all cards issued by banks. Of the total number of ATMs in the RC, 22% (in all, 1,112) are contactless

ATMs, that is, they can be used by simply tapping the card and then entering the PIN.

## EFTPOS terminal

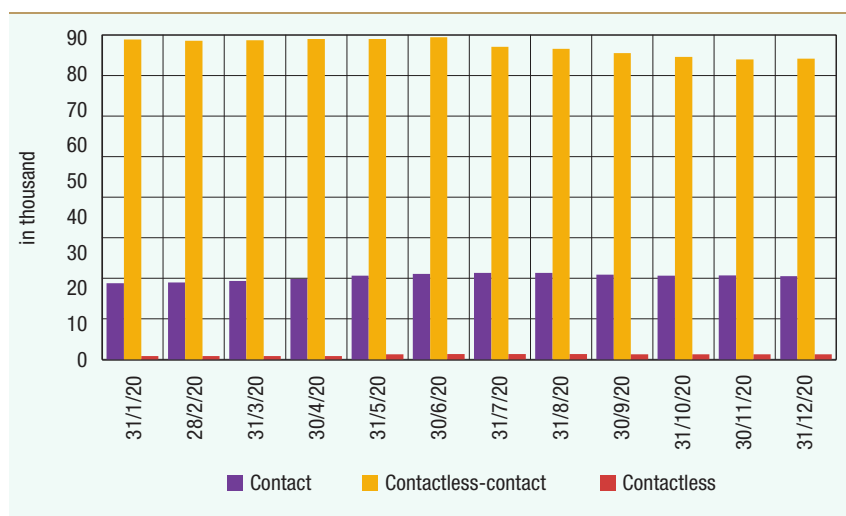
An EFTPOS terminal (electronic funds transfer at point of sale) is an electronic terminal allowing cardholders to initiate card-based payment transactions at a point of sale.

On 31 December 2020, in all 107,654 EFTPOS terminals were recorded, a 3.2% decrease from 31 December 2019 (Table 1). The decrease in the number of EFTPOS terminals was the result of the annual review of reporting entities on active EFTPOS terminals at points of sale.

EFTPOS terminals can be divided into contact, contactless-contact and contactless terminals. Contact EFTPOS terminals support the acquiring of payment cards, which contain records based only on a chip and/or magnetic stripe. Contactless-contact EFTPOS terminals support the acquiring of payment cards, which, in addition to the record based on a magnetic stripe and/or chip, also contain records based on contactless technology (proximity card reading, NFC, etc.). Contactless EFTPOS terminals support the acquiring of payment cards, which contain records based on contactless technology (proximity card reading, NFC, etc.).

As in 2019, in 2020, within the category of EFTPOS terminals, the number of contactless-contact EFTPOS terminals continued to increase from 80,884, as recorded on 31 December 2019, to 83,204, as recorded on 31 December 2020, accounting for 77% of all EFTPOS terminals on 31 December 2020.

**Figure 2** Number of EFTPOS terminals in the RC



Note: Data refer to the balance on the last day of each reporting month in 2020.  
Source: CNB.

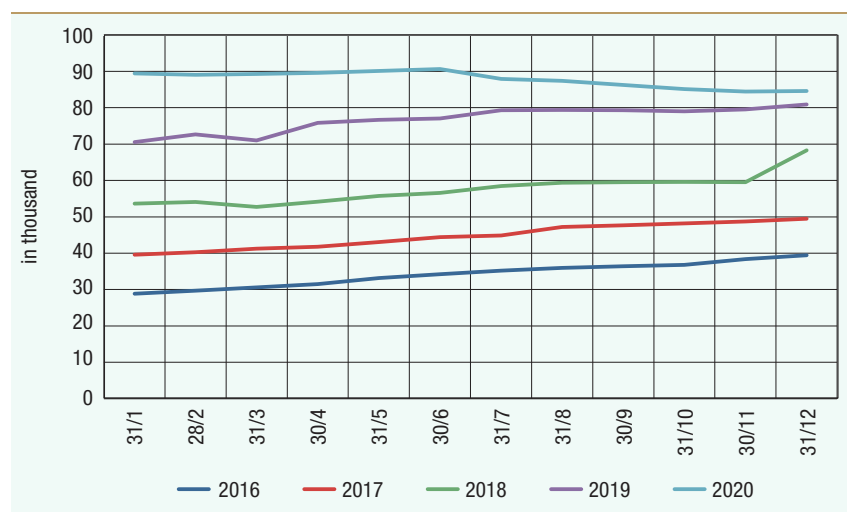
The implementation of contactless EFTPOS terminals exclusively (terminals that do not enable the initiation of a transaction by inserting a card into a POS or using a magnetic stripe) was observed for the first time in 2017, and on 31 December 2017 a total of eight contactless EFTPOS terminals were recorded. The trend of the installation of contactless terminals continued in the following years, so that 1,420 of them were recorded on 31 December 2020, accounting for 1.3% of all EFTPOS terminals.

The number of contact EFTPOS terminals increased from 21,949 to 23,030, as recorded on 31 December 2019 and 31 December 2020 respectively (Figure 2).

The number of contactless-contact terminals increased from January 2014:

- on 31 December 2015, 28,407 contactless-contact EFTPOS terminals were recorded, accounting for a 59% increase from 31 December 2014;
- on 31 December 2016, 39,458 contactless-contact EFTPOS terminals were recorded, accounting for a 39% increase from 31 December 2015;
- on 31 December 2017, 49,476 contactless-contact EFTPOS terminals were recorded, accounting for a 25.4% increase from 31 December 2016;
- on 31 December 2018, 68,284 contactless-contact EFTPOS terminals were recorded, accounting for a 38% increase from 31 December 2017;
- on 31 December 2019, 80,884 contactless-contact EFTPOS terminals were recorded, accounting for an 18.5% increase from 31 December 2018;
- on 31 December 2020, 83,204 contactless-contact EFTPOS terminals were recorded, accounting for a 2.9% increase from 31 December 2019 (Figure 3).

**Figure 3** Number of contactless-contact EFTPOS terminals in the RC



Note: Data refer to the balance on the last day of each reporting month.  
Source: CNB.

## EFTPOS terminal for withdrawal and deposit

An EFTPOS terminal for withdrawal and deposit is a terminal that allows cardholders to initiate only the payment transactions of the withdrawal and/or deposit of cash using a payment card. This terminal is most frequently located in the premises of a third person, which, pursuant to a contract, operates on behalf and for the account of the payment service provider (e.g. the Financial Agency, Croatian Post, etc.).

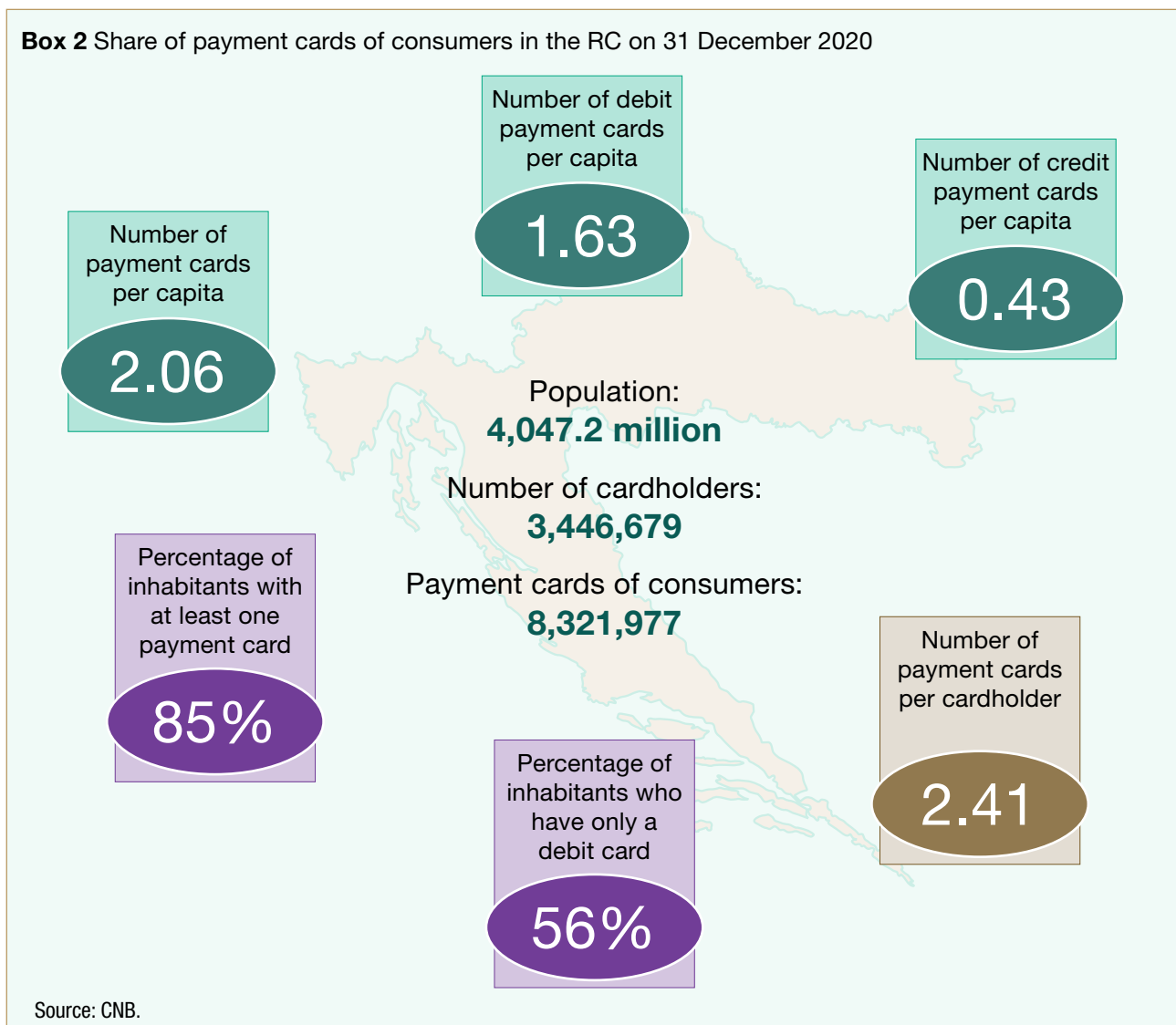
The number of such terminals is decreasing, as confirmed by the fact that on 31 December 2020, in all 682 EFTPOS terminals for withdrawal and deposit were recorded, while on 31 December 2019, there were 940 EFTPOS terminals for withdrawal and deposit (Table 1).

### 3 Payment cards market in the RC

Statistical data on payment cards issued by payment service providers – issuers in the RC are presented in this chapter.

Payment service providers – issuers (hereinafter referred to as ‘issuers’) in the RC include:

1. credit institutions (banks) that have obtained authorisation from the CNB, which includes the authorisation to provide the payment service of the issuance of payment cards; and
2. electronic money institutions<sup>3</sup> that have obtained the authorisation of the CNB to provide the payment service of issuing payment cards.



<sup>3</sup> Not including data submitted by electronic money institutions that at the same time carry out the activity of telecommunications services.

The issuer may issue several payment cards to a single cardholder. Also, a cardholder may have payment cards issued by several issuers.

The chapter is divided into three parts:

- the first part contains an overview of the number of payment cards in the market of the RC (Sub-chapter 3.1);
- the second part contains an overview of the degree of technological development of payment cards (Sub-chapter 3.1.1);
- the third part contains an overview of the number of payment cards by holder (Sub-chapter 3.2).

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## 3.1 Payment cards

‘Payment card’ means a payment instrument enabling its holder to make payments for goods and services either through an accepting device for payment cards or remotely, and/or to withdraw and deposit cash and/or use other services at an ATM or at other accepting devices for payment cards and to transfer funds and which enables payment transaction initiation and its execution within a card payment scheme.

The basic breakdown of payment cards is according to maturity and settlement of expenses, i.e. according to the moment when the holder settles the expenses incurred on a payment card. Accordingly, payment cards are divided into debit (pay now), credit (pay later) and prepaid cards<sup>4</sup> (pay in advance).

- **Debit payment cards** (hereinafter referred to as ‘debit cards’) allow the holder to pay for goods and services and withdraw cash through the ATM, other terminals and over the counter at credit institutions. When using a debit card, the cardholder’s payment account is debited for the incurred expense immediately after the execution of the card-based payment transaction, provided that there is coverage in the account. The coverage in the account also includes the amount of any unused allowed overdraft.
- **Credit payment cards** (hereinafter referred to as ‘credit cards’) allow the holder to pay for goods and services and withdraw cash through an ATM and other terminals. The use of a credit card does not require the holder to ensure coverage in the payment account for the execution of a payment transaction at the time of its initiation. A credit line (limit) is granted to the credit card user for the execution of a payment transaction. Expenses incurred by using the credit card during a specific

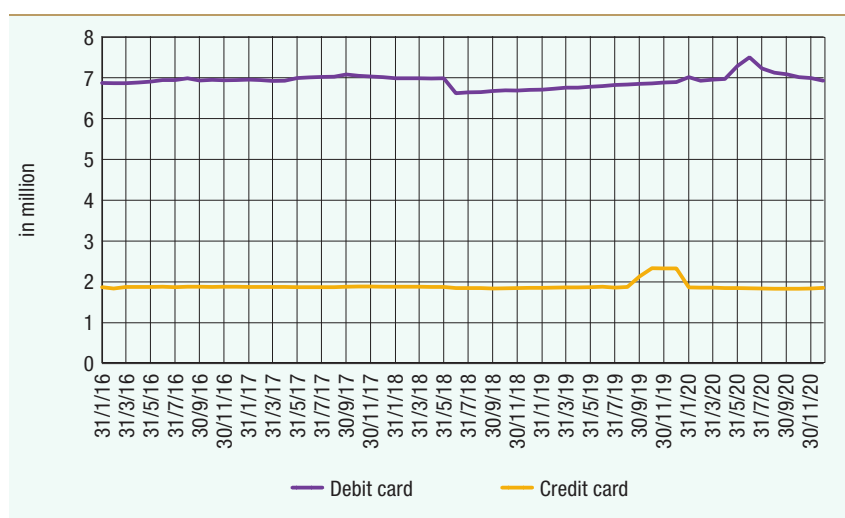
<sup>4</sup> Statistical data on prepaid payment cards are not included in the overview of this publication.



period are charged within deadlines defined by the agreement on the issuing of the credit card, i.e. after a specific time. Credit cards include credit, charge, revolving, delayed debit and membership cards.

On 31 December 2020, a total of 8,780,256 payment cards of consumers and business entities (non-consumers) were recorded in the RC, of which 6,924,530 were debit cards (79%) and 1,855,726 were credit cards (21%). On 31 December 2020, the total number of payment cards decreased by 4.8% from 31 December 2019. In the same period, the number of debit cards increased by 0.41% and the number of credit cards decreased by 20.32% (Figure 4). The decrease in the number of credit cards on 31 December 2020 from the same date in 2019 was a result of the business decision of a card brand issued in the three-party card scheme to leave the market of the RC. The payment cards of this card brand issued in the three-party card scheme were replaced in such a manner that the “old” cards were active until 31 December 2019, and the “new” ones became active from the moment when they were provided to the holder. As a result, the total number of credit cards in the RC on 31 December 2019 temporarily increased by the amount of the “old” cards.

**Figure 4** Number of payment cards



Note: Data refer to the total number of used, unused and blocked payment cards on the last day of each reporting month.

Source: CNB.

Payment cards are issued to consumers and/or legal persons (non-consumers). A consumer may be issued a basic and an additional payment card. A payment card user that is a business entity (non-consumer) may be issued only the basic payment card.

On 31 December 2020, a total of 8,321,977 payment cards issued to consumers were recorded in the RC, 86% of which were basic payment cards (Table 3).

**Table 3** Number of payment cards issued in the RC by user on 31 December 2020

Type of payment card	Consumer		Non-consumer	Total
	Basic	Additional	Basic	
Debit card	5,571,634	1,005,142	347,754	6,924,530
Credit card	1,615,176	130,025	110,525	1,855,726
<b>Total</b>	<b>7,186,810</b>	<b>1,135,167</b>	<b>458,279</b>	<b>8,780,256</b>

Note: Data refer to the total number of payment cards on 31 December 2020.  
Source: CNB.

As explained in the introduction, payment cards are broken down into debit and credit cards. Credit cards can also be broken down by the type of contract between the issuer and cardholder and by the agreed manner of cost repayment. In accordance with the above, cards are broken down into debit cards, charge cards, revolving cards, delayed debit cards, credit cards and certain combinations of the above options.

On 31 December 2020, of the total number of cards in the RC, the most represented were debit cards with the share of 79%, followed by charge cards with the share of 8% and cards with the delayed debit function and revolving cards each with a 5% share. The breakdown of payment cards by type is shown in Table 4.

**Table 4** Number of payment cards issued in the RC by type of card on 31 December 2020

Type of payment card	Number of payment cards	Share
Debit card	6,924,530	79%
Charge card	706,427	8%
Delayed debit card	451,730	5%
Revolving card	397,270	5%
Credit card	185,901	2%
Other/membership	114,398	1%
<b>Total</b>	<b>8,780,256</b>	<b>100%</b>

Note: Data refer to the total number of payment cards on 31 December 2020.  
Source: CNB.

A payment card is most frequently a plastic card. However, a payment card may be in/on another carrier medium, such as the mobile phone, sticker (a payment card is stored or attached to/on another carrier medium), etc. Of the total number of all payment cards, on 31 December 2020, 123,859 card stickers were recorded, of which 96,664 were debit.

## Payment cards statuses

An issued payment card may have one of these statuses: used, unused and blocked. The sum of used, unused and blocked payment cards makes up the total number of payment cards issued in the RC shown on the last day of each reporting month.

The term ‘used’ means that at least one card-based payment transaction was executed with the payment card over the past year, and the term ‘unused’ means that no card-based payment transaction was executed with the payment card over the past year. The term ‘over the past year’ means one year from the last day of the reporting period (month), and not a calendar year.

A ‘blocked payment card’ means a payment card in circulation that temporarily cannot be used for card-based payment transactions.

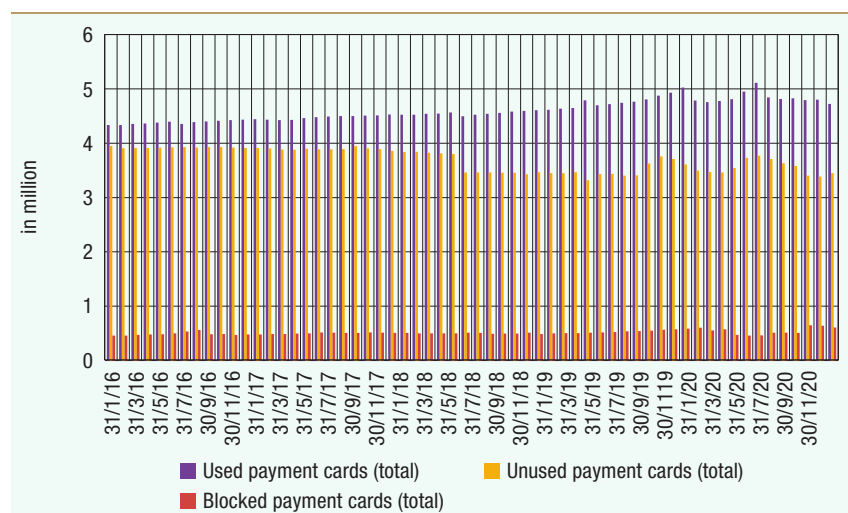
In 2020, the average monthly number of:

- used payment cards stood at 4.83 million;
- unused payment cards stood at 3.55 million;
- blocked payment cards stood at 0.55 million.

The received data on payment cards show that used cards on average accounted for as much as 54% per month of the total number of payment cards in 2020, that is, of the total number of payment cards issued in the RC, every second card has been unused (40%) or blocked (6%) over the past year.

A presentation of the number of used, unused and blocked payment cards at the end of each month in the last four years is shown in Figure 5.

**Figure 5** Number of used, unused and blocked payment cards



Note: Data refer to the total number of used, unused and blocked payment cards on the last day of each reporting month.

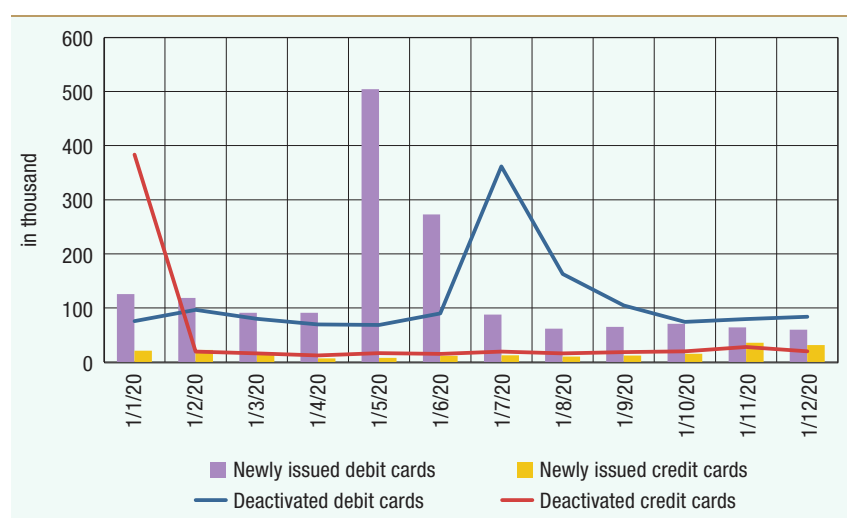
Source: CNB.

## Newly issued and deactivated payment cards

‘Newly issued payment card’ means a payment card that is issued to the holder for the first time during the reporting month. Data on payment cards with the status of ‘newly issued’ refer to the newly issued cards throughout the reporting month, and not to their status on the last day of the reporting month.

In 2020, a total of 1,814,368 payment cards were newly issued, of which 1,611,520 or 89% were debit cards and 202,848 or 11% were credit cards (Figure 6).

**Figure 6** Number of newly issued and deactivated payment cards by type of card



Note: Data refer to the total number of newly issued and deactivated payment cards during each reporting month in 2020.

Source: CNB.

‘Deactivated payment card’ means a payment card the use of which for card-based payment transactions has been permanently disabled. Data on payment cards with the status of ‘deactivated’ refers to cards deactivated throughout the reporting month.

In 2020, a total of 1,929,679 payment cards were deactivated, of which 1,346,003 or 70% were debit cards and 583,676 or 30% were credit cards (Figure 6). The significant increase in the number of deactivated payment cards was a result of a business decision to replace a card brand by a different brand.

### 3.1.1 Degree of technological development of payment cards in the RC

Employing different technologies, payment card issuers in the RC issue users cards that most frequently have an EMV chip, a magnetic stripe and contactless functionality.

## EMV chip and magnetic payment cards

Payment cards that possess both an EMV chip and a magnetic stripe (hereinafter referred to as 'EMV payment cards') currently prevail in the market of the RC, while the number of cards possessing only a magnetic stripe is constantly on the decline.

The EMV standard was started by a working group created in 1993 by the world payment organisations: Europay, MasterCard and Visa. In fact, the name EMV is derived from the initial letter of each of these three institutions. The standard covers the processing of microchip-based credit and debit cards (smart cards), i.e. it defines a set of rules the aim of which is to set up secure and smooth communication between smart cards and accepting devices for payment cards. EMV standard-based cards are a significant improvement over magnetic stripe-based cards, primarily because of the higher level of security and the prevention of card fraud.

The total number of EMV payment cards:

- on 31 December 2014, stood at 8,039,663, accounting for 93% of the total number of all payment cards;
- on 31 December 2015, stood at 8,145,400, accounting for 93% of the total number of all payment cards;
- on 31 December 2016, stood at 8,259,687, accounting for 94% of the total number of all payment cards;
- on 31 December 2017, stood at 8,321,886, accounting for 94% of the total number of all payment cards;
- on 31 December 2018, stood at 7,990,140, accounting for 93% of the total number of all payment cards;
- on 31 December 2019, stood at 8,857,325, accounting for 96% of the total number of all payment cards;
- on 31 December 2020, stood at 8,609,519, accounting for 98% of the total number of all payment cards.

## Contactless and contact payment cards

According to the technology of payment transaction initiation, payment cards can be divided into two basic types: contact and contactless.

- **'Contact payment card'** means a payment card that enables the execution of contact card-based payment transactions and contains records based on a chip and/or magnetic stripe. Contact card-based payment transactions are initiated by swiping or inserting a payment card through/into a device (e.g. an EFTPOS terminal).

- **‘Contactless payment card’** means a payment card that enables the execution of contact and contactless card-based payment transactions and contains records based on a chip and/or magnetic stripe, and records based on contactless technology. Contactless card-based payment transactions are initiated by the payment card being brought close to an accepting device for payment cards (e.g. EFTPOS terminal) that possesses readers for contactless payments. As a rule, contactless payment cards retain all the functionalities of contact payment cards and have the additional possibility of initiating contactless card-based payment transactions.

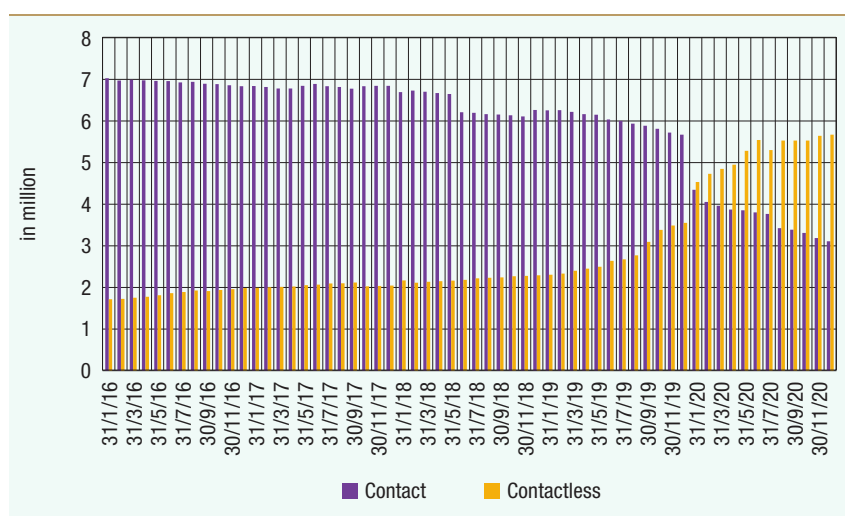
**Table 5** Number of contact and contactless payment cards issued in the RC on 31 December 2020

Type of payment card	Contact	Contactless	Total
Debit card	2,633,602	4,290,928	6,924,530
Credit card	476,058	1,379,668	1,855,726
<b>Total</b>	<b>3,109,660</b>	<b>5,670,596</b>	<b>8,780,256</b>

Note: Data refer to the total number of payment cards on 31 December 2020.  
Source: CNB.

On 31 December 2020, of the total number of payment cards, 3,109,660 or 35% of them were contact and 5,670,596, i.e. 65% were contactless (Table 5). These data confirm that in 2020, the strong growing trend of the issuance of contactless payment cards continued in the RC, so that their number in 2020 increased by 60% from 2019 and eventually exceeded the total number of contact cards in January 2020. Of the total number of contactless payment cards, 4,290,928 or 76% were debit cards (Figure 7). It can be assumed that further growth in the share

**Figure 7** Number of contact and contactless payment cards



Notes: Data refer to the total number of contact and contactless payment cards on the last day of each reporting month.

Includes used, unused and blocked payment cards.

Source: CNB.

of contactless cards will also depend on the dynamics of the regular replacement of old cards by new ones by the issuer.

In 2020, the share of the number of contact payment cards continued to decrease from 61% (5,670,701), as recorded on 31 December 2019, to 35% (3,109,660), as recorded on 31 December 2020.

## 3.2 Cardholders

This chapter gives an overview of the number of payment cards by holder. As already explained in the introduction, several payment cards may be issued to a single cardholder by the same issuer. Also, a cardholder may have payment cards issued by several issuers. This overview covers payment cards issued by issuers in the RC.

A cardholder may be a consumer and a business entity (non-consumer).

### Consumer

On 31 December 2020, a total of 3,446,679 cardholders (consumers) were recorded, i.e. of the total RC population of 4,047.2 million<sup>5</sup>, 85% had at least one payment card.

Sixty-seven per cent of all cardholders (consumers) hold payment cards issued by only one issuer, 25% hold payment cards issued by two issuers, and 6% of consumers hold payment cards issued by three or more issuers (Table 6).

**Table 6** Number of cardholders in the RC (consumers)

Number of PSP issuers	Number of holders	Total debit cards	Total credit cards	Total payment cards
One	2,308,782	3,627,272	426,138	4,053,410
Two	860,917	2,020,030	797,596	2,817,626
Three	222,859	704,316	373,962	1,078,278
Four	45,007	179,644	113,573	293,217
Five and more	9,114	47,213	32,233	79,446
<b>Total</b>	<b>3,446,679</b>	<b>6,578,475</b>	<b>1,743,502</b>	<b>8,321,977</b>

Note: Data refer to the total number on 31 December 2020.  
Source: CNB.

On 31 December 2020, the total number of cardholders (consumers) holding a debit card stood at 3,426,393, i.e. 85% of the population of the RC held at least one debit card. In addition, on 31 December 2020 the

<sup>5</sup> Croatian Bureau of Statistics, "Population Estimates", 19 February 2021.



number of cardholders holding only a debit card stood at 2,274,597, i.e. 56% of the population of the RC held only debit cards, i.e. did not hold a credit card. The total number of cardholders (consumers) holding a credit card stood at 1,151,796 or 28% of the population of the RC.

On 31 December 2020, of the total number of cardholders (consumers), 34.24% held only one payment card, 29.29% two and 17.26% three payment cards.

### Business entities (non-consumers)

On 31 December 2020, a total of 240,264 cardholders – business entities (non-consumers) were recorded.

Table 7 gives a presentation of the number of cardholders – business entities (non-consumers) by the number of issuers. It is evident that the largest number of cardholders – business entities (non-consumers), 84% of them, held payment cards issued by one issuer (Table 7).

**Table 7** Number of cardholders in the RC – business entities (non-consumers)

Number of PSP issuers	Number of holders	Total debit cards	Total credit cards	Total payment cards
One	200.646	246.683	40.893	287.576
Two	31.422	57.439	51.771	109.210
Three	6.360	19.717	20.113	39.830
Four	1.483	7.233	7.206	14.439
Five and more	353	4.635	2.589	7.224
<b>Total</b>	<b>240.264</b>	<b>335.707</b>	<b>122.572</b>	<b>458.279</b>

Note: Data refer to the total number on 31 December 2020.  
Source: CNB.

Of the total number of cardholders (non-consumers) 62% held only one payment card, and 22% two payment cards.

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## 4 Card-based payment transactions

This chapter presents statistical data on the total number and value of national and international payment transactions made using payment cards issued by payment service providers – issuers in the RC.

Payment service providers – issuers (hereinafter referred to as ‘issuers’) in the RC include:

1. credit institutions (banks) that have obtained authorisation from the CNB, which includes the authorisation to provide the payment service of the issuance of payment cards; and
2. electronic money institutions<sup>6</sup> that have obtained the authorisation of the CNB to provide the payment service of issuing payment cards.

‘Card-based payment transaction’ means a service based on a payment card’s acquiring infrastructure and card scheme business rules to make a payment transaction by means of a debit or a credit card.

Card-based payment transactions may be:

- **national card-based payment transactions** – card-based payment transactions the execution of which involves a payer’s payment service provider (issuer) and a payee’s payment service provider (acquirer), or only one payment service provider (the issuer, which is at the same time the acquirer), which operate in the RC.

The total number and value of card-based payment transactions executed in the RC by consumers and business entities (non-consumers) with an issuer’s payment cards are included;

- **international card-based payment transactions** – card-based payment transactions the execution of which involves two payment service providers, one of which (the issuer) is located in the RC, and the other (the acquirer) is located in a third country or another member state.

The total number and value of payment transactions executed outside the RC (in other member states or third countries) by consumers and business entities (non-consumers) with issuer’s payment cards are included.

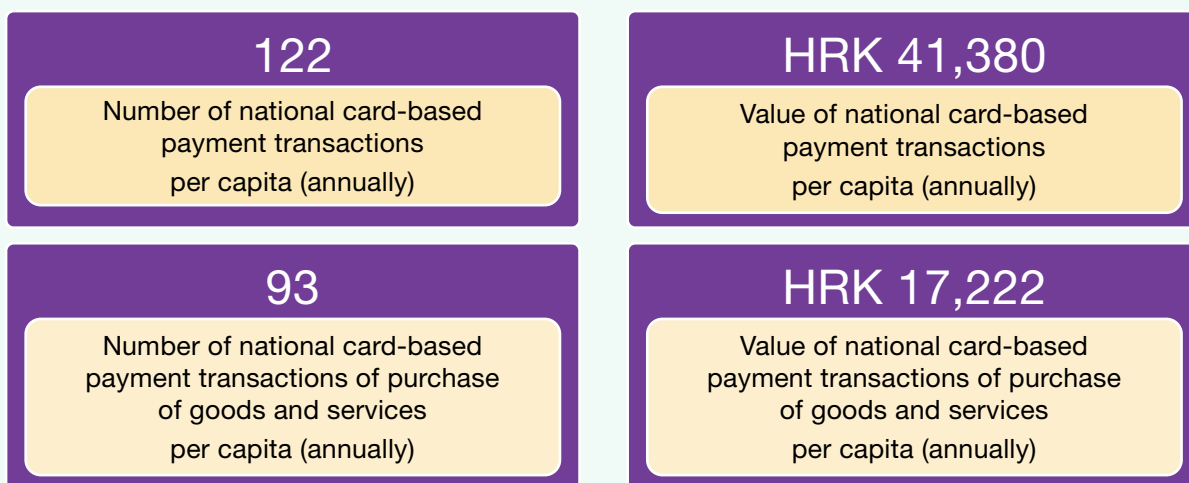
<sup>6</sup> Not including data submitted by electronic money institutions that at the same time carry out the activity of telecommunications services.

Along with the development of the payment cards market, card-based payment transactions have also developed, for they are no longer restricted to the transactions of the purchases of goods and services through EFTPOS terminals and transactions of cash withdrawal and deposit at ATMs, but also cover the transactions of the purchases of goods and services through the Internet, contractual charge transactions through a payment card and cash withdrawals through an EFTPOS terminal and other channels and methods.

The chapter is divided into three parts:

- the first part shows the total number and value of national and international card-based payment transactions executed using issuers' payment cards (Sub-chapter 4.1);
- the second part shows the total number and value of national card-based payment transactions executed using issuers' payment cards (Sub-chapter 4.1.1);
- the third part shows the total number and value of international card-based payment transactions executed using issuers' payment cards (Sub-chapter 4.1.2).

**Box 3** National card-based payment transactions per capita in 2020



Source: CNB.

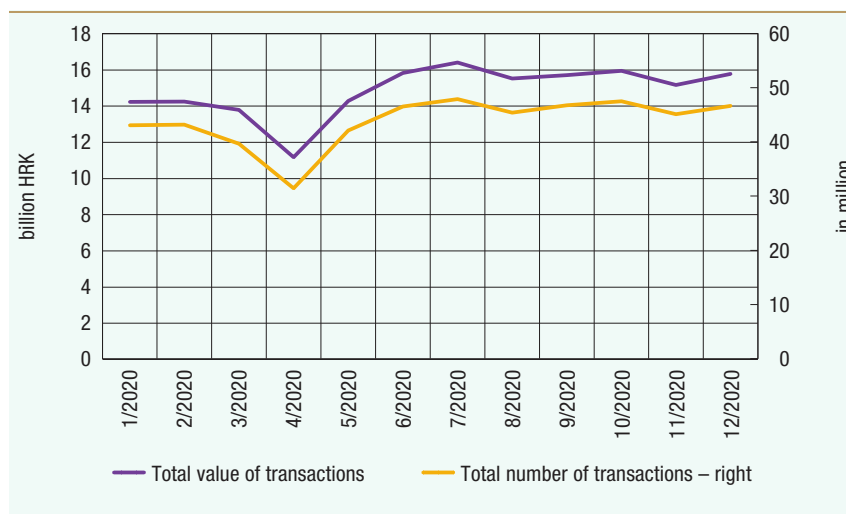
## 4.1 Total card-based payment transactions

This sub-chapter presents statistical data on national and international card-based payment transactions executed by issuers' payment cards.

In 2020, 21 credit institutions and 2 electronic money institutions issued payment cards in the RC, and their users executed a total of 526.15 million of card-based payment transactions with a total value of HRK 178,154.15 million (Figure 8). In 2020, the number of total card-based

payment transactions increased by 1.2%, and their value increased by 0.9% from 2019.

**Figure 8** Number and value of national and international card-based payment transactions



Note: Data refer to the total number and value of national and international card-based payment transactions in 2020.  
Source: CNB.

The average monthly number of card-based payment transactions executed using payment cards issued in the RC stood at 43.85 million, and the average monthly value of transactions at HRK 14,846.17 million.

On average, 9.08 card-based payment transactions were executed monthly per used payment card issued in the RC, with a total value of HRK 3,072.96.

#### 4.1.1 National card-based payment transactions

This sub-chapter presents statistical data on national card-based payment transactions executed by an issuer's payment cards.

National card-based payment transactions include:

- payment transactions of the purchases of goods and services using a payment card;
- payment transactions of cash withdrawals using a payment card;
- payment transactions of cash deposits using a payment card;
- standing orders and direct debits charged through a payment card; and
- fees, membership fees, interest and similar, charged from an issuer through a payment card.

A total of 492.52 million national card-based payment transactions with a total value of HRK 167,471.67 million were executed in the RC in 2020. In 2020, the total number of national card-based payment transactions increased by 1.86%, and their value increased by 1.74% from 2019.

**Table 8** Number and value of national card-based payment transactions by type of payment card in HRK

Type of payment card	Purchases of goods and services	Cash withdrawals	Cash deposits	Contractual debit	Total
<b>Number of transactions</b>					
Debit payment card	296,901,840	87,929,896	5,625,586		390,457,322
Credit payment card	81,195,386	3,611,664	5,620	17,258,272	102,070,942
<b>Total</b>	<b>378,097,226</b>	<b>91,541,560</b>	<b>5,631,206</b>	<b>17,258,272</b>	<b>492,528,264</b>
<b>Value of transactions</b>					
Debit payment card	49,326,416,604	78,710,675,355	14,741,181,253		142,778,273,212
Credit payment card	20,373,471,453	3,497,486,971	6,020,943	816,420,406	24,693,399,773
<b>Total</b>	<b>69,699,888,057</b>	<b>82,208,162,326</b>	<b>14,747,202,196</b>	<b>816,420,406</b>	<b>167,471,672,985</b>
<b>Average value of transaction</b>					
Debit payment card	166	895	2,620		366
Credit payment card	251	968	1,071	47	242
<b>Total</b>	<b>184</b>	<b>898</b>	<b>2,619</b>	<b>47</b>	<b>340</b>

Note: Data refer to the total number and value of national card-based payment transactions in HRK in 2020.  
Source: CNB.

Of all national card-based payment transactions, 390.45 million transactions, or 79%, were executed using debit cards, with a total value of HRK 142,778.27 million or 85% (Table 8). In 2020, the total number of national payment transactions executed using debit cards increased by 4.9%, and the total value increased by 4% from 2019.

Of all national card-based payment transactions, 102.07 million transactions, or 21%, were executed using credit cards, with a total value of HRK 24,693.39 million or 15% (Table 8). In 2020, the total number of national payment transactions executed using credit cards decreased by 8.3%, and the total value by 9.7% from 2019.

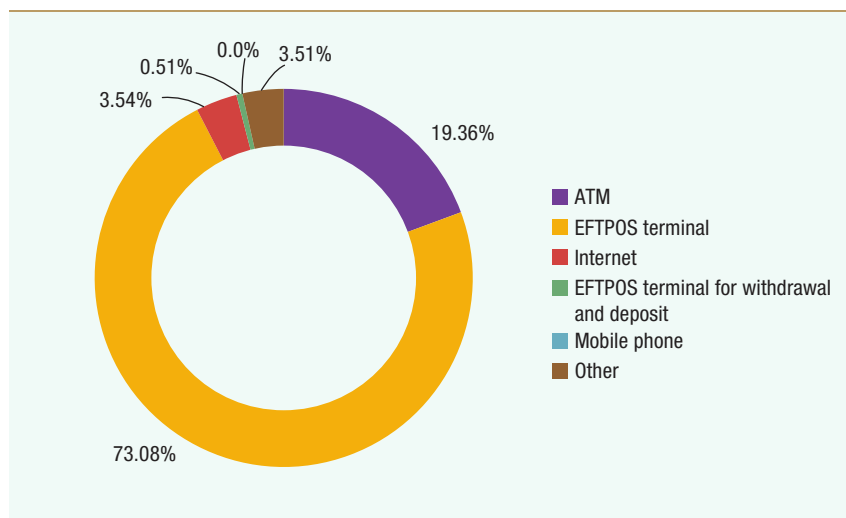
### National card-based payment transactions by accepting devices for payment cards

Of the total number of national card-based payment transactions in 2020, broken down by accepting devices for payment cards, the following were executed:

- **through ATMs:** 95.33 million card-based payment transactions with a total value of HRK 92,486.1 million;
- **through EFTPOS terminals:** 359.93 million card-based payment transactions with a total value of HRK 64,586.98 million;

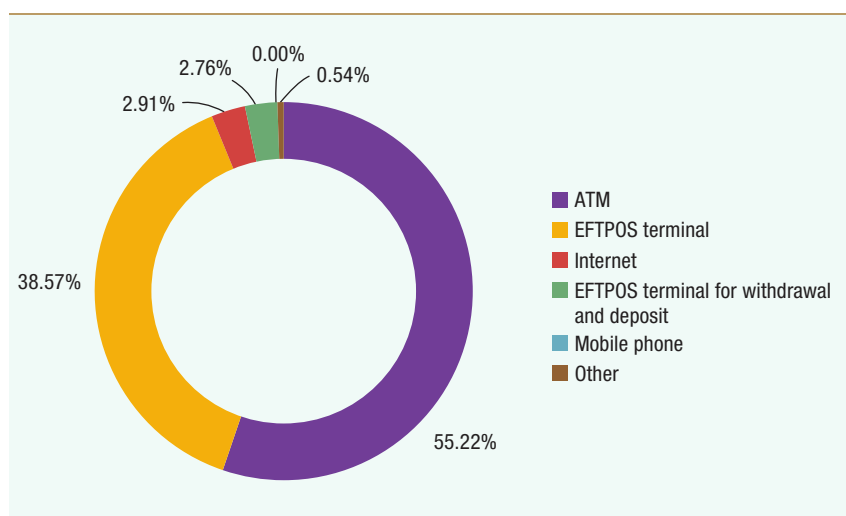
- **through the Internet:** 17.42 million card-based payment transactions with a total value of HRK 4,874.49 million;
- **through EFTPOS terminals for withdrawal and deposit:** 2.50 million card-based payment transactions with a total value of HRK 4,621.83 million;
- **by mobile telephone:** 0.01 million card-based payment transactions with a total value of HRK 1.45 million; and
- **other:** covers 17.33 million direct debit, fee and interest transactions, with a total value of HRK 900.81 million.

**Figure 9** Number of national card-based payment transactions by accepting devices for payment cards



Note: Data refer to the total number of national card-based payment transactions in 2020.  
Source: CNB.

**Figure 10** Value of national card-based payment transactions by accepting devices for payment cards

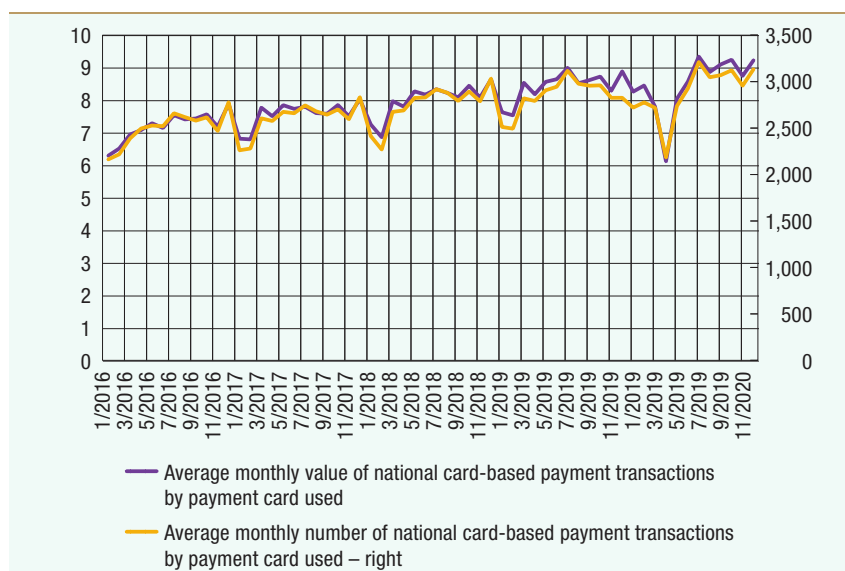


Note: Data refer to the total number of national card-based payment transactions in 2020.  
Source: CNB.

It is evident from the data shown that 73.08% of national card-based payment transactions were executed through EFTPOS terminals, and 19.36% through ATMs (Figure 9). The value of transactions, however, shows an inverse ratio: in terms of the total value of national card-based payment transactions, ATM transactions accounted for 55.22% and EFTPOS terminals 38.57% (Figure 10). The data also indicate that, in 2020, the value of card-based transactions executed over the Internet increased by slightly over 13%.

In the RC, on average 8.5 national card-based payment transactions were executed monthly per payment card used, with a total value of HRK 2,888.44 (Figure 11).

**Figure 11** Average monthly number and value of national card-based payment transactions by payment card used in HRK



Note: Data refer to the average number and value of national card-based payment transactions during each reporting month.

Source: CNB.

## Purchases of goods and services

The term ‘purchases of goods and services’ includes all card-based payment transactions for the purchases of goods and services executed using an issuer’s payment card through EFTPOS terminals, the Internet, mobile phone and through ATMs.

In all, 378.09 million national card-based payment transactions of the purchases of goods and services, with a total value of HRK 69,699.88 million, were executed in 2020. Of this number, 296.90 million national card-based payment transactions (79%) were executed using debit cards, with a total value of HRK 49,326.42 million or 71%. The remaining 81.19 million (21%) national card-based payment transactions of

purchases of goods and services, with a total value of HRK 20,373.47 million (29%), were made using credit cards.

In 2020, the total number of national card-based payment transactions of the purchases of goods and services increased by 8%, and the total value increased by 5.6% from 2019.

In 2020, the average value of a national card-based payment transaction of the purchase of goods or services stood at HRK 184. The average value of a national card-based payment transaction of the purchase of goods or services in which a debit card was used stood at HRK 166 and in which a credit card was used stood at HRK 251 (Table 8).

Of the above 378.09 million national card-based payment transactions, 362.40 million transactions were executed using consumer payment cards, with a total value of HRK 63,017.01 million. Accordingly, 96% of the number and 90% of the value of national card-based payment transactions of the purchases of goods and services were executed using consumer payment cards.

The average value of a national card-based payment transaction of the purchase of goods or services in which a consumer payment card was used stood at HRK 174, while the average for a similar transaction in which a payment card of a business entity (non-consumer) was used was HRK 425.

Card-based payment transactions of the purchases of goods and services can be broken down by the function of the payment card used. The cardholder selects the function when initiating the card-based payment transaction through an accepting device for payment cards. We distinguish the following functions:

- **debit function** – coverage on the payment account is ensured for the execution of a card-based payment transaction at the moment of its initiation, and the card-based payment transaction is charged immediately and directly from that cardholder's payment account;
- **charge function** – the amount of total expenses incurred through the use of this function is settled in full, in a specified time interval, most frequently by a credit transfer;
- **delayed debit function** – the amount of total expenses incurred through the use of this function is settled in full, in a specified time interval, most frequently by direct debit of the cardholder's payment account;
- **credit function** – every card-based payment transaction initiated using the credit function is automatically divided, at the time of its initiation, into the agreed number of repayment instalments, in other words, according to the agreed model;



- **revolving function** – the amount of total expenses incurred through the use of this function is settled, in a specified time interval, in a percentage of the total amount; and
- **the instalment payment function** – the amount of a transaction executed through the use of this function is divided by the number of repayment instalments in a specified time interval, according to the choice of the cardholder, within the model agreed at the point of sale.

**Table 9** Number and value of national card-based payment transactions of the purchases of goods and services by function in HRK

Function	Number of transactions of purchases of goods and services	Value of transactions of purchases of goods and services	Average value of the transaction of purchase of goods or services
Debit function	293,498,454	46,972,937,358	160
Charge function	47,478,075	10,210,163,608	215
Function of repayment in instalments	6,195,807	6,719,049,653	1,084
Delayed debit function	19,582,738	3,667,213,998	187
Revolving function	9,828,171	1,655,092,306	168
Credit function	1,513,981	475,431,134	314
<b>Total</b>	<b>378,097,226</b>	<b>69,699,888,057</b>	<b>184</b>

Note: Data refer to the total number and value of national card-based payment transactions of purchases of goods and services in 2020.  
Source: CNB.

Of all national card-based payment transactions of the purchases of goods and services, 78% were executed using the debit function. The value of transactions executed by the debit function accounted for 67% of the total value of national card-based payment transactions of the purchases of goods and services. An overview of the number and value of national card-based payment transactions of the purchases of goods and services by function is presented in Table 9.

The largest average value of the national card-based payment transaction of the purchase of goods or services in the amount of HRK 1,084 was recorded for card-based payment transactions using the instalment repayment function (Table 9).

## Cash withdrawals

‘Cash withdrawals’ covers payment transactions of cash withdrawals executed initiated by the payer using the issuer’s payment card through an ATM, EFTPOS terminal, EFTPOS terminal for withdrawal and deposit and other channels.

In all, 91.54 million national card-based payment transactions of cash withdrawals, worth a total of HRK 82,208.16 million, were executed in

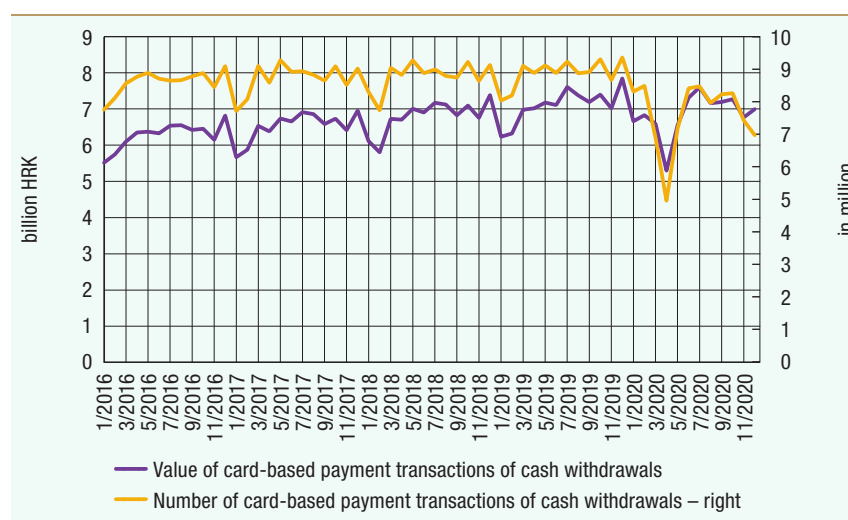
2020. Debit cards accounted for 87.93 million (96%) executed national card-based payment transactions of cash withdrawals, with a total value of HRK 78,710.67 million (96%; Table 8). Credit cards accounted for 3.6 million (4%) executed national card-based payment transactions of cash withdrawals, with a total value of HRK 3,497.48 million (4%; Table 8).

In 2020, the total number of national card-based payment transactions of cash withdrawals decreased by 14%, and their value decreased by 3.6% from 2019. The above also confirms the hypothesis that, due to the COVID-19 pandemic, cardholders used ATMs somewhat less frequently in 2020 than in 2019. However, when they did withdraw cash, the amounts on average were slightly larger than in 2019. The movement in the number and value of national card-based payment transactions of cash withdrawals by month are shown in Figure 12.

Of the total number of national card-based payment transactions, 88.57 million (97%) cash withdrawal transactions using consumer payment cards and 2.96 million (3%) using business entity (non-consumer) payment cards were executed.

Of the total value of national card-based payment transactions, HRK 76,501.22 million (93%) cash withdrawal transactions using consumer payment cards and HRK 5,706.94 million (7%) using business entity (non-consumer) payment cards were executed.

**Figure 12** Number and value of national card-based payment transactions of cash withdrawals



Note: Data refer to the total number and value of national card-based payment transactions during each reporting month.

Source: CNB.

In 2020, the average value of a national card-based payment transaction of a cash withdrawal stood at HRK 898 (with the use of a debit card the average value stood at HRK 895, while that with the use of a credit card was HRK 968).

The average value of a national card-based payment transaction of a cash withdrawal in which a consumer payment card was used stood at HRK 863, and the corresponding value in which a payment card of a business entity (non-consumer) was used was HRK 1,921.

**Table 10** Number and value of national card-based payment transactions of cash withdrawals by function  
in HRK

Function	Number of transactions of cash withdrawals	Value of transactions of cash withdrawals	Average value of the transaction of a cash withdrawal
Debit function	87,699,813	78,499,102,581	895
Charge function	1,087,883	1,197,963,849	1,101
Function of repayment in instalments	233,120	213,414,447	915
Delayed debit function	1,095,675	1,279,952,353	1,168
Revolving function	1,038,723	592,858,873	571
Credit function	386,346	424,870,223	1,100
<b>Total</b>	<b>91,541,560</b>	<b>82,208,162,326</b>	<b>898</b>

Note: Data refer to the total number and value of national card-based payment transactions of cash withdrawals in 2020.

Source: CNB.

Of the total number of national card-based payment transactions of cash withdrawal, 96% were executed using the debit function. The value of transactions executed using the debit function accounted for 95% of the total value of national card-based payment transactions of cash withdrawal. An overview of the number and value of national card-based payment transactions of cash withdrawals by function is presented in Table 10.

The largest average value of a national card-based payment transaction of a cash withdrawal in the amount of HRK 1,101 was recorded for card-based payment transactions using the charge function (Table 10).

## Cash deposits

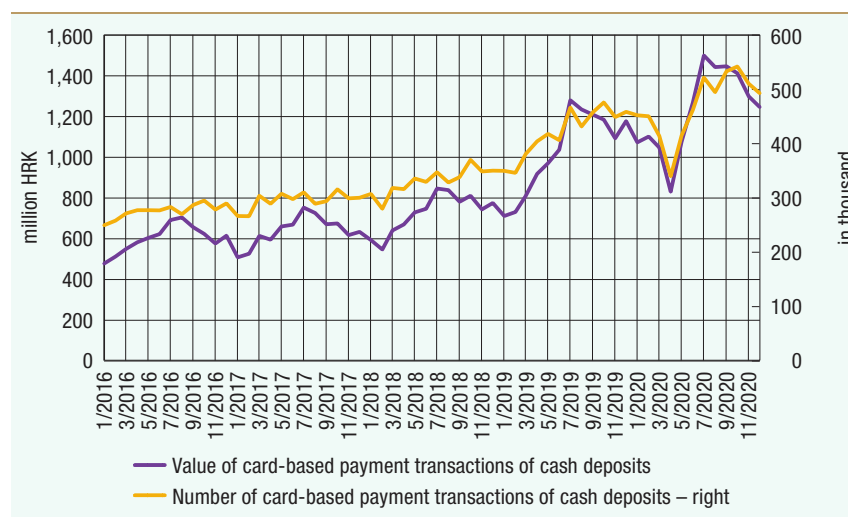
‘Cash deposits’ covers payment transactions of the deposits of funds to the account for payment using the issuer’s payment card through ATMs, EFTPOS terminals for withdrawal and deposit and other methods (channels), but it does not include the payment transactions of cash deposits into a day/night deposit box.

In all, 5.63 million national card-based cash deposit payment transactions, worth a total of HRK 14,747.20 million, were executed in 2020. Over 99.9% of all national card-based cash deposit payment transactions, in both number and value, were executed with the use of debit cards.

Of the total of 5.63 million national card-based payment transactions, 4.21 million (75%) cash deposit transactions were executed using consumer payment cards, with a total value of HRK 8,025.59 million, or 54% of the value of all such transactions, while 1.42 million (25%) transactions, with a total value of HRK 6,721.61 million, or 46%, were executed using the payment cards of business entities (non-consumers).

In 2020, the total number of national card-based cash deposit payment transactions increased by 11.58%, the value having increased by 19.3% from 2019. The above data suggest that, due to shorter working hours of branch offices because of the pandemic, cardholders more frequently used an ATM as the channel for cash deposits to their payment accounts in 2020 than in 2019 (Figure 13).

**Figure 13** Number and value of national card-based payment transactions of cash deposits



Note: Data refer to the total number and value of national card-based payment transactions during each reporting month.

Source: CNB.

In 2020, the average value of a national card-based payment transaction of a cash deposit stood at HRK 2,619. The average value of a national card-based payment transaction of a cash deposit in which a debit card was used stood at HRK 2,620, and the average in which a credit card was used was HRK 1,071.

The average value of a national card-based payment transaction of a cash deposit using a consumer payment card stood at HRK 1,908, while that in which a payment card of a business entity (non-consumer) was used was HRK 4,715.

## Contractual debit

‘Contractual debit’ includes payment transactions for which collection through a payment card is contracted in advance, initiated by or through

the payee; it may have the elements of a standing order or direct debit, including the cardholder's obligations to the issuer, such as fees, commissions, interest, membership fees, etc. Contractual debit may be agreed for all types of payment cards, except debit cards.

In all, 17.26 million transactions of contractual debits, worth a total of HRK 816.42 million, were executed in 2020. The largest number of transactions, 15.55 million (90%) of them, with a total value of HRK 575.14 million (70%), were fee, membership fee, interest and similar transactions, which cardholders paid through payment cards to the issuers. The remaining 1.7 million transactions (10%) were payment transactions of direct debits executed through payment cards, with a total value of HRK 241.23 million (30%).

In 2020, the average value of a contractual debit transaction stood at HRK 47. The average value of interest, fee, membership fee and similar transactions, which cardholders paid through payment cards, stood at HRK 36, while the average value of payment transactions of direct debits executed through payment cards stood at HRK 141.

### Unauthorised use (fraud)

'Unauthorised use' includes all card-based payment transactions in which unauthorised use of a payment card, or fraud, is established.

It was established that there was a total of 54,624 national card-based payment transactions of unauthorised use in 2020, worth a total of HRK 19,295,020. In 2020, the average value of a national card-based payment transaction in which unauthorised use was established stood at HRK 353.

Of the total national card-based payment transactions, 49,869 (91%) transactions of unauthorised use using consumer payment cards were identified, worth a total of HRK 17,114,251, or 88.7%, while 4,755 or 8% transactions, with a total value of HRK 2,180,769, or 11.3%, were identified in transactions using the payment cards of business entities (non-consumers).

#### 4.1.2 International card-based payment transactions

This sub-chapter shows statistical data on international card-based payment transactions executed using issuers' payment cards.

International card-based payment transactions include:

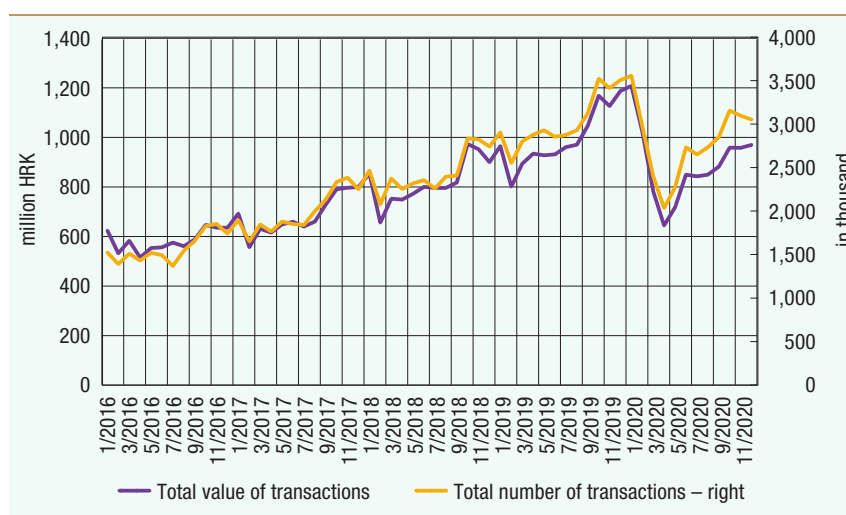
- payment transactions of the purchases of goods and services using an issuer's payment cards executed outside the RC (in other member states or third countries); and
- payment transactions of cash withdrawals using an issuer's payment cards executed outside the RC (in other member states or third countries).

Data on international card-based payment transactions are shown in kuna; the original currency of the card-based payment transaction is converted to kuna at the CNB's exchange rate on the last day of the reporting period, i.e. the month for which the data are shown.

A total of 33.6 million international card-based payment transactions, worth a total of HRK 10,682.48 million were executed in 2020. The average value of an international card-based payment transaction stood at HRK 317.

The average monthly number of international card-based payment transactions stood at 2.8 million, and the average monthly value of transactions at HRK 890.2 million. The total number of international card-based payment transactions in 2020 also shows the impact of the COVID-19 pandemic. Their total number decreased by 7.6% from 2019, while the total value of international card-based payment transactions decreased by 10.33% in the same period (Figure 14).

**Figure 14** Number and value of international card-based payment transactions in HRK



Note: Data refer to the total number and value of international card-based payment transactions during each reporting month.

Source: CNB.

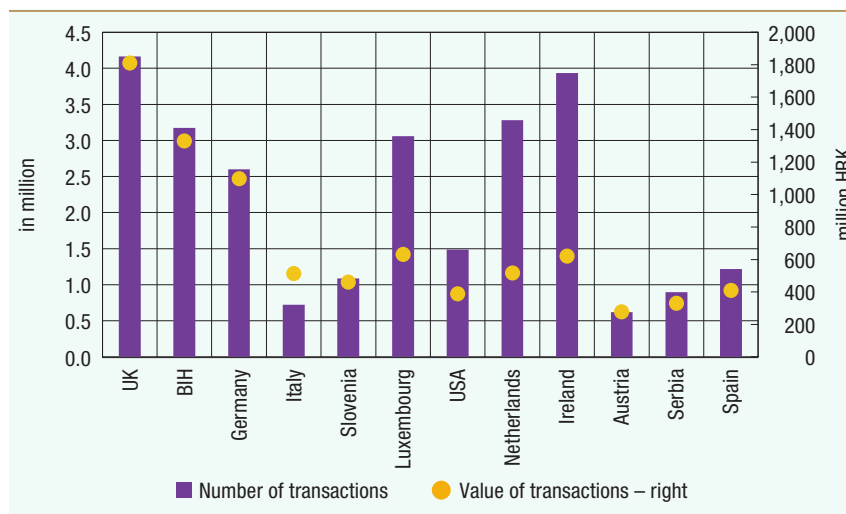
Of the total number and value of international card-based payment transactions, 95% of the number and 87% of the value of international card-based payment transactions were executed with the use of

consumer cards, while 5% of the number and 13% of the value of international card-based payment transactions were executed with the use of the cards of business entities (non-consumers).

International card-based payment transactions were executed in 132 currencies and 210 countries.

From the received data on international card-based payment transactions broken down by countries it is evident that in the twelve most represented countries (The Netherlands, Austria, Serbia, Spain, Bosnia and Herzegovina, Slovenia, Germany, Italy, the United States, the United Kingdom, Luxembourg and Ireland) the total value of card-based payment transactions stood at HRK 8,382.93 million, accounting for 77% of the total value of all international card-based payment transactions (Figure 15).

**Figure 15** Number and value of international card-based payment transactions – the most represented countries



Notes: Data refer to the total number and value of international card-based payment transactions in 2020.

The value of transactions converted to HRK on the last day of each reporting period.

Source: CNB.

Figure 15 shows states in which holders of the payment card issued in the RC executed the total value of card-based payment transactions with a total value of over HRK 400 million.

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## 5 Acquiring of payment transactions executed using payment cards

This chapter shows statistical data of payment service providers – acquirers on the number and value of acquiring transactions executed using payment cards through an accepting device for payment cards.

Payment service providers – acquirers (hereinafter referred to as ‘acquirers’) in the RC include:

1. credit institutions (banks) that have obtained authorisation from the CNB, which includes authorisation to provide the payment services of acquiring of payment transactions executed using payment cards;
2. electronic money institutions<sup>7</sup> that have obtained authorisation from the CNB to provide the payment services of acquiring payment transactions executed using payment cards; and
3. payment institutions that have obtained authorisation from the CNB to provide the payment services of acquiring payment transactions executed using payment cards.

An acquirer may acquire a payment transaction executed using a payment card issued by:

- a payment service provider – issuer that has obtained its authorisation or the authorisation for the provision of the service of issuing of payment cards from the CNB (hereinafter referred to as ‘a Croatian issuer’); or
- a payment service provider – issuer that has obtained its authorisation or the authorisation for the provision of the service of issuing of payment cards from one of the competent bodies of other EU member states or third countries (hereinafter referred to as ‘a foreign issuer’).

The acquiring of payment cards of Croatian issuers is divided into the acquiring of payment transactions executed using payment cards the acquirer itself has issued and the acquiring of payment transactions executed using payment cards of other Croatian issuers.

The chapter is divided into four parts:

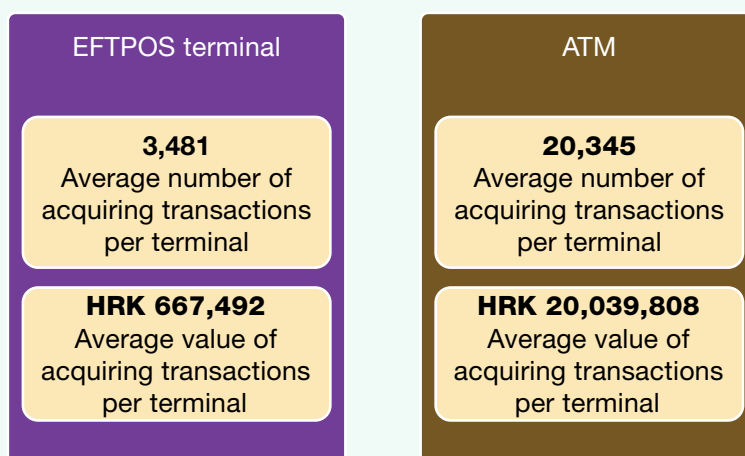
- the first part shows the total number and value of transactions of the acquiring of payment transactions executed using payment cards of Croatian and foreign issuers (Sub-chapter 5.1);

<sup>7</sup> Not including data submitted by electronic money institutions that at the same time carry out the activity of telecommunications services.



- the second chapter shows the total number and value of transactions of the acquiring of payment transactions executed using payment cards the issuer itself has issued (own cards) and cards other Croatian issuers have issued (cards of other Croatian issuers) (Sub-chapter 5.1.1);
- the third part shows the total number and value of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers (Sub-chapter 5.1.2);
- the fourth part gives a comparison of the use of payment cards and the use of cash in the RC (Sub-chapter 5.2).

**Box 4** Transactions of the acquiring of payment transactions executed using payment cards according to accepting devices for payment cards in 2020



Source: CNB.

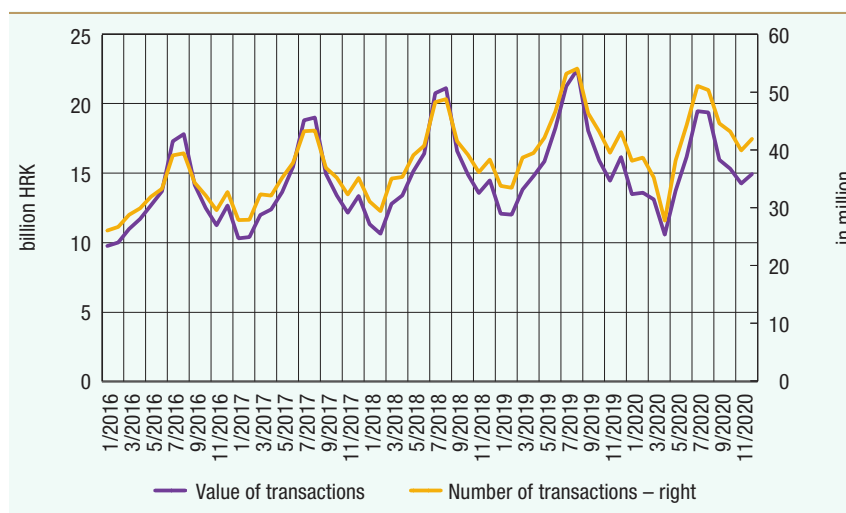
## 5.1 Total acquiring of payment transactions executed using payment cards

This sub-chapter shows statistical data on the total number and value of transactions of the acquiring of payment transactions executed using payment cards (hereinafter referred to as 'acquiring transactions') of Croatian and foreign issuers.

In all, 493.07 million acquiring transactions, with a total value of HRK 179,904.39 million, were executed in 2020 (Figure 16). In 2020, the total number of acquiring transactions decreased by 3.9%, and their value decreased by 7.7% from 2019.

The data shown in Figure 16 also suggest an upward trend in the total number and value of monthly transactions of acquiring payment cards for the purchase of goods or services in the period from May to September. After September and the summer tourist season, the number and value of monthly transactions usually falls to the beginning of the year level. The above can be attributed to the impact of payment cards of foreign issuers. However, the figures for the number and value of

**Figure 16** Number and value of transactions of acquiring in the RC



Note: Data refer to the total number and the total value of acquiring transactions in HRK during the reporting month.

Source: CNB.

monthly transactions of acquiring payment cards were somewhat smaller in 2020 than the figures for 2019 due to the impact of the pandemic. As in every year, the largest number of acquiring transactions was recorded in July, this year with a total of 51.01 million transactions and the total value of HRK 19,441.36 million.

## Business entities

The acquiring service is provided at contractual merchants, i.e. business entities and private persons that pursuant to a contract with the acquirer offer the possibility of payment by payment cards through accepting devices for payment cards at their point of sale. Although physical EFTPOS terminals are traditionally the most significant among acquiring terminals, the number of new terminals, such as M-POS or virtual POS terminals, is growing.

EFTPOS terminals are physical terminals installed at a physical point of sale. M-POS and virtual POS are application solutions for the acquiring of payment cards that may be installed on any mobile terminal at a physical point of sale or for the acquiring of payment cards through the Internet.

On 31 December 2020, a total of 30,428 contractual merchants (business entities) were recorded, of which 3,603 (11.84%) also offered the possibility of payment by payment cards through the Internet at their point of sale. The above data on 3,603 points of sale that on 31 December 2020 also offered the possibility of payment by payment cards through the Internet suggest that over the past year the number of points of sale that also offer the possibility of payment by payment cards through the Internet in the RC increased by 56.5%.

Of the total number of contractual merchants (30,428), 24,062 (79%) offer the possibility of payment by payment cards only through physical EFTPOS terminals. Furthermore, 1,692 contractual merchants (5.56%) offer the possibility of payment by payment cards only through the Internet, that is, without the possibility of purchase through a physical EFTPOS terminal. The above number of contractual merchants is shown independently of the number of acquiring locations the merchant is using. A retail chain is thus recorded as a contractual merchant, regardless of the number of points of sale and accepting devices for payment cards that are used.

Of the total number of merchants (business entities), 1,071 have an M-POS and/or a virtual POS installed.

Of the total of the above 30,428 contractual merchants, 19,012 or 63% of them have the service of acquiring contracted with only one payment service provider – acquirer, 7,108 (23%) of them have the service of acquiring contracted with two acquirers, and 3,380 (11%) with three acquirers.

### Private persons (consumers)

On 31 December 2020, a total of 1,889 contractual merchants – natural persons were recorded, of which 1,212 (64%) had the service of acquiring through the Internet contracted. All of them have the service of acquiring contracted with only one payment service provider – acquirer.

Accepting devices for payment cards through which the acquiring service is provided include the ATM, the EFTPOS terminal, the Internet and the EFTPOS terminal for withdrawal and deposit (Table 11).

**Table 11** Number and value of acquiring transactions by accepting device for payment cards

Payment service provider – acquirer	ATM	EFTPOS terminal	Internet	EFTPOS terminal for withdrawal and deposit	Other	Total
<b>Number of transactions</b>						
Credit institutions	98,828,465	179,829,467	1,877,956	2,691,811		283,227,699
Electronic money institutions and payment institutions	738,855	194,919,670	14,113,658	41,005	28,017	209,841,205
<b>Total</b>	<b>99,567,320</b>	<b>374,749,137</b>	<b>15,991,614</b>	<b>2,732,816</b>	<b>28,017</b>	<b>493,068,904</b>
<b>Value of transactions, in HRK</b>						
Credit institutions	97,210,777,054	32,878,300,664	974,385,578	4,832,956,719		135,896,420,015
Electronic money institutions and payment institutions	864,041,690	38,979,882,330	3,998,724,674	90,767,000	74,556,037	44,007,971,731
<b>Total</b>	<b>98,074,818,744</b>	<b>71,858,182,994</b>	<b>4,973,110,252</b>	<b>4,923,723,719</b>	<b>74,556,037</b>	<b>179,904,391,746</b>

Note: Data refer to the total number and value of acquiring transactions in HRK in 2020.  
Source: CNB.

Of the total number of acquiring transactions, 20.19% of transactions were acquired through ATMs, 76% through EFTPOS terminals, 3.24% through the Internet, 0.55% through EFTPOS terminals for withdrawal and deposit and 0.01% were other transactions.

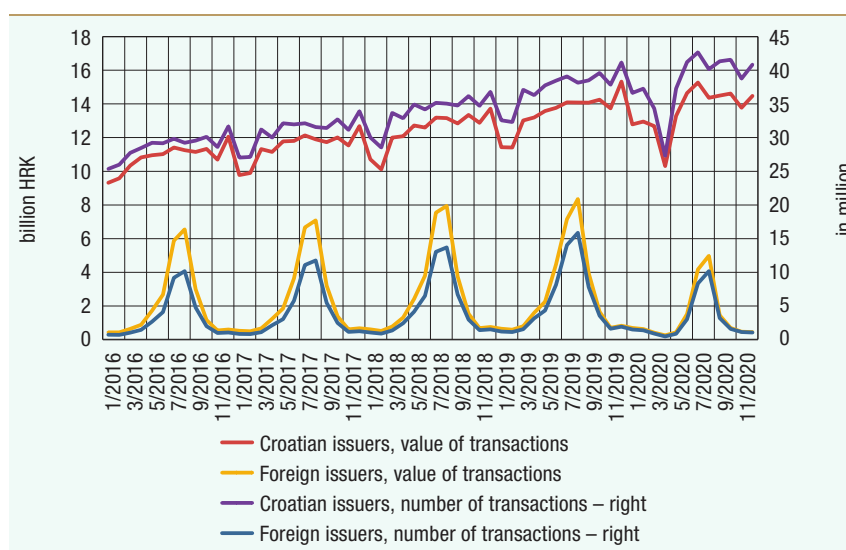
Of the total value of acquiring transactions, 54.51% of transactions were acquired through ATMs, 39.94% through EFTPOS terminals, 2.76% through the Internet, 2.74% through EFTPOS terminals for withdrawal and deposit and 0.04% were other transactions.

In all, 99.57 million transactions, with a total value of HRK 98,074.82 million, were acquired through ATMs in 2020. Credit institutions participated in the acquiring of payment transactions executed using payment cards for the purpose of cash withdrawals through ATMs with a share of 99% in the number and value of transactions.

In all, 374.75 million transactions, worth a total of HRK 71,858.18 million, were acquired through EFTPOS terminals in 2020. Electronic money institutions and payment institutions accounted for 52% of the share in the number of transactions and 54% in the value of transactions of the total acquiring of payment transactions executed using payment cards through EFTPOS terminals.

The total number of transactions of the acquiring of payment transactions executed using payment cards through the Internet in 2020 stood at 15.99 million with a total value of HRK 4,973.11 million. Of the total service of the acquiring of payment transactions executed using payment cards through the Internet, electronic money institutions and

**Figure 17** Total number and value of acquiring transactions according to payment card issuer



Note: Data refer to the total number and value of transactions of acquiring.  
Source: CNB.

payment institutions accounted for a share of over 80% both in the number and in the value of transactions.

The average value of an acquiring transaction stood at HRK 365 in 2020:

- **through EFTPOS terminals:** HRK 192;
- **through the Internet:** HRK 311;
- **through ATMs:** HRK 985;
- **through EFTPOS terminals for withdrawal and deposit:** HRK 1,802; and
- **through other means:** HRK 2,661;

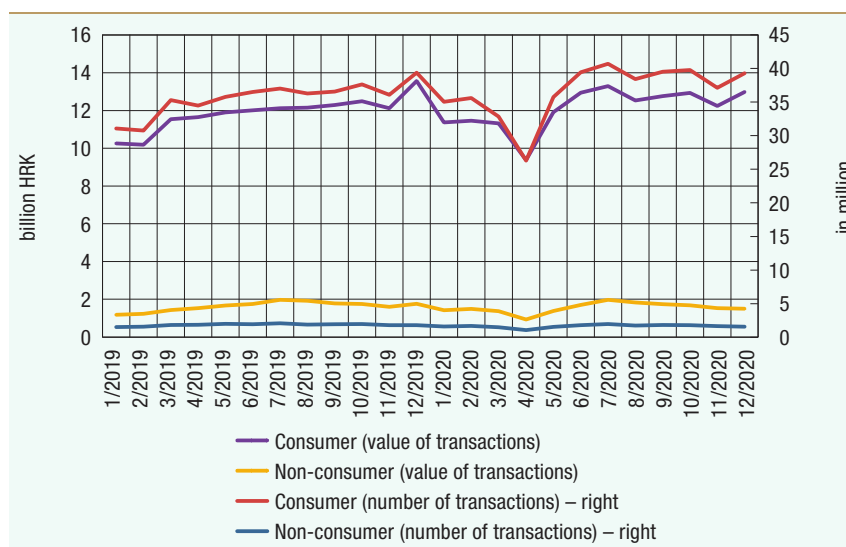
Of the total of 493.07 million acquiring transactions executed in 2020, 93% of them refer to payment cards of Croatian issuers, and 7% to those of foreign issuers. In 2020, of the total HRK 179,904.39 million's worth of acquiring transactions executed, 91% refers to payment cards of Croatian issuers, and 9% to payment cards of foreign issuers (Figure 17).

In 2020, the total number of acquiring transactions of foreign issuers fell by 47%, and their value decreased by 50% from 2019.

In 2020, the total number of acquiring transactions of Croatian issuers increased by 2.3%, and their value increased by 1% from 2019.

In 2020, a total of 459.23 million transactions of the acquiring of payment transactions executed using payment cards of Croatian issuers were

**Figure 18** Total number and value of transactions of the acquiring of payment transactions executed using payment cards of Croatian issuers according to cardholder



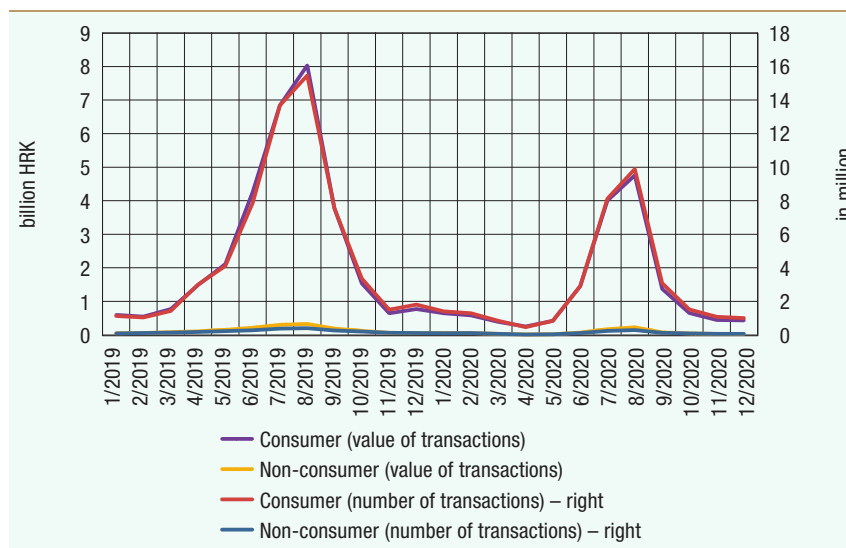
Note: Data refer to the total number and value of transactions of the acquiring of payment transactions executed using Croatian issuers' payment cards.

Source: CNB.

executed, worth a total of HRK 163,653.93 million, of which the following were acquired (Figure 18):

- **payment cards of consumers:** 439.95 million transactions, worth a total of HRK 145,151.99 million; and
- **payment cards of non-consumers (business entities):** 19.27 million transactions, worth a total of HRK 18,501.94 million.

**Figure 19** Total number and value of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers according to cardholder



Note: Data refer to the total number and value of transactions of the acquiring of payment transactions executed using foreign issuers' payment cards.  
Source: CNB.

In 2020, in all 33.85 million transactions of the acquiring of payment transactions executed using payment cards of foreign issuers were executed, worth a total of HRK 16,250.46 million, of which the following were acquired (Figure 19):

- **payment cards of consumers:** 32.48 million transactions, worth a total of HRK 15,423.39 million; and
- **payment cards of non-consumers (business entities):** 1.36 million transactions, worth a total of HRK 827.07 million.

The service of acquiring of payment transactions executed using payment cards may be provided for:

- the purchase of goods or services;
- cash withdrawal and deposit.

Of the total number of acquiring transactions, purchases of goods and services accounted for 79%, cash withdrawals accounted for 20% and cash deposits for 1%. In terms of value, a somewhat inverse ratio is

seen: of the total value of acquiring transactions, purchases of goods and services accounted for 43%, cash withdrawals accounted for 49% and cash deposits for 8%.

The term 'purchases of goods and services' includes the transactions of the acquiring of payment transactions executed using payment cards for the purchased goods and services initiated through EFTPOS terminals, the Internet and ATMs.

In all, 391.28 million acquiring transactions of the purchases of goods and services, worth a total of HRK 76,863.11 million (own cards, cards of other Croatian issuers and cards of foreign issuers) were executed in 2020. In 2020, the total number of acquiring transactions of the purchases of goods and services decreased by 0.07%, and their value decreased by 10.29% from 2019.

'Cash withdrawals' covers the transactions of the acquiring of payment transactions of cash withdrawal executed using payment cards, initiated through an ATM, EFTPOS terminal and EFTPOS terminal for withdrawal and deposit. In 2020, the total number of acquiring transactions of cash withdrawal came to 96.25 million, with a total value of HRK 88,509.06 million, a decrease of 17.47% in the number of transactions and 8.66% in the value of transactions from 2019.

'Cash deposits' covers the payment transactions of acquiring executed using payment cards for the deposit of funds, initiated through ATM and EFTPOS terminals for withdrawal and deposit.

In 2020, the total number of acquiring transactions of cash deposits came to 5.54 million, with a total value of HRK 14,532.22 million, an increase of 9.41% in the number of transactions and 17.03% in the value of transactions from 2019.

### **5.1.1 Acquiring of payment transactions executed using payment cards issued in the RC**

This chapter shows statistical data on the number and value of transactions of the acquiring of payment transactions executed using payment cards of Croatian issuers.

The acquiring of payment transactions executed using payment cards of Croatian issuers is divided into the acquiring of payment transactions executed using payment cards the acquirer itself has issued (hereinafter referred to as 'own cards') and the acquiring of payment transactions



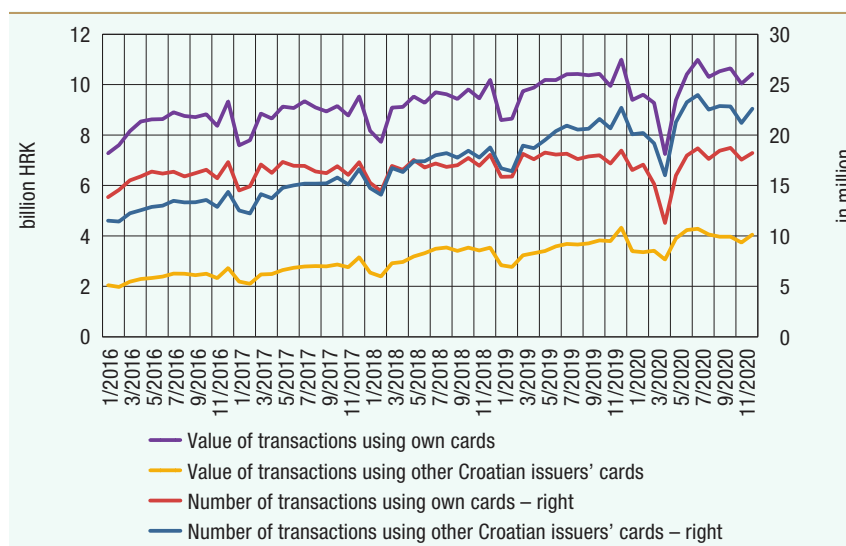
executed using payment cards of other Croatian issuers (hereinafter referred to as ‘other Croatian issuers’).

In 2020, a total of 459.22 million acquiring transactions were executed, worth a total of HRK 163,653.93 million, of which the following were acquired (Figure 20):

- **own cards:** 203.22 million transactions, worth a total of HRK 118,211.08 million; and
- **cards of other Croatian issuers:** 256 million transactions, worth a total of HRK 45,442.85 million.

In 2020, the total number of acquirings of payment transactions executed using payment cards of Croatian issuers increased by 2.3%, and the total value increased by 1.1% from 2019, despite the COVID-19 pandemic.

**Figure 20** Number and value of transactions of the acquiring of payment transactions executed using payment cards issued in the RC



Note: Data refer to the total number and value of acquiring transactions during each reporting month.

Source: CNB.

Figure 20 shows the total number and value of transactions of the acquiring of payment transactions executed using payment cards issued in the RC by issuer at a monthly level in 2016, 2017, 2018, 2019 and 2020. It is evident that acquirers most frequently acquired payment transactions executed using own cards, i.e. the cards they have issued themselves. Of the total number of transactions of the acquiring of payment transactions executed using Croatian issuers' payment cards, 20.76% of transactions were acquired through ATMs, 75.40% through EFTPOS terminals, 3.26% through the Internet, 0.58% through EFTPOS terminals for withdrawal and deposit. If total values of transactions of the acquiring of Croatian issuers' payment cards are observed, 56.33%



of transactions were acquired through ATMs, 38.12% through EFTPOS terminals, 2.61% through the Internet and 2.94% through EFTPOS terminals for withdrawal and deposit.

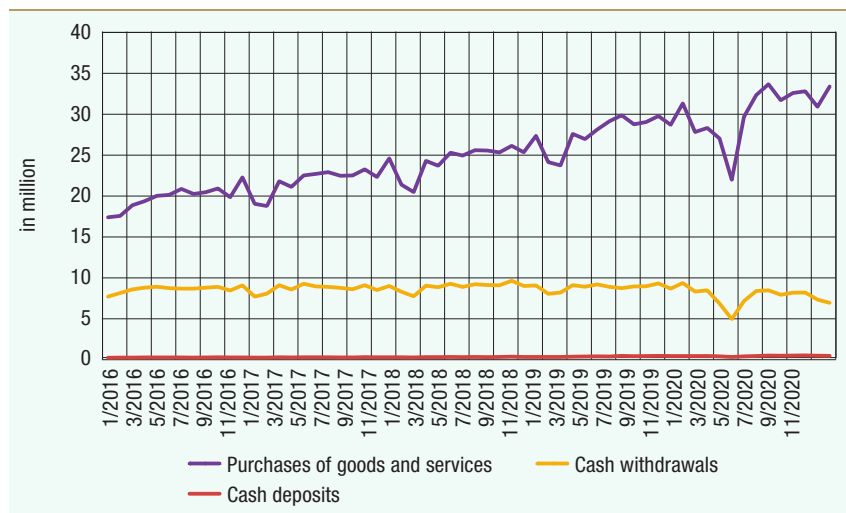
In 2020, the average value of a transaction of the acquiring of payment transactions executed using Croatian issuers' payment cards stood at:

- **through EFTPOS terminals:** HRK 180;
- **through the Internet:** HRK 285;
- **through ATMs:** HRK 972; and
- **through EFTPOS terminals for withdrawal and deposit:** HRK 1,787.

In 2020, the average number of transactions of the acquiring of payment transactions executed using Croatian issuers' payment cards stood at 38.27 million a month, and the average value of transactions was HRK 13,637.83 million a month.

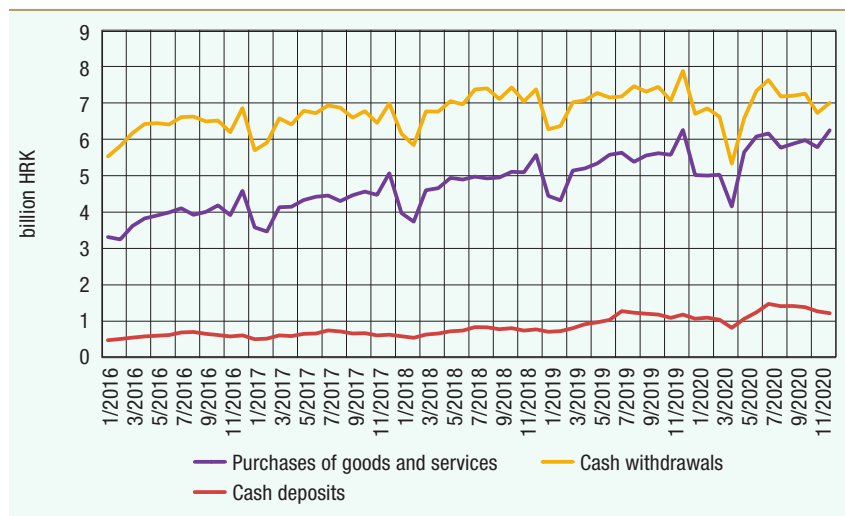
From a review of the transactions of acquiring of payment transactions executed using Croatian issuers' payment cards according to type of transaction, cash withdrawals were the most represented, accounting in the total value of acquiring transactions for 41%, followed by the purchases of goods and services with 50%, and cash deposits with 9% (Figures 21 and 22).

**Figure 21** Number of transactions of the acquiring of payment transactions executed using payment cards issued in the RC by type of transaction



Note: Data refer to the total number of transactions of acquiring during each reporting month.  
Source: CNB.

**Figure 22** Value of transactions of the acquiring of payment transactions executed using payment cards issued in the RC by type of transaction



Note: Data refer to the total value of transactions of acquiring during each reporting month.  
Source: CNB.

## Purchases of goods and services

The term ‘purchases of goods and services’ includes the transactions of the acquiring of payment transactions executed using payment cards for the purchased goods and services executed through EFTPOS terminals, the Internet and ATMs.

In 2020, 362.29 million transactions of the acquiring of payment transactions executed using payment cards of Croatian issuers for the purchases of goods and services were recorded, worth a total of HRK 66,732.86 million, executed by payment cards issued in the RC.

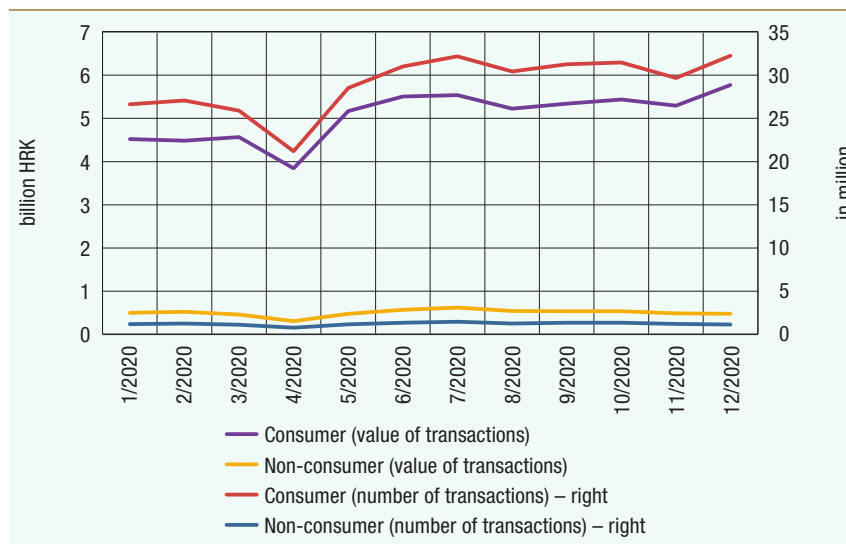
Of the total transactions of the acquiring of payment transactions for the purchases of goods and services, executed using payment cards of Croatian issuers:

- **through EFTPOS terminals:** 346.84 million transactions (95.71%) were acquired, with a total value of HRK 62,426.05 million (93.55%);
- **through the Internet:** 14.95 million transactions (4.41%) were acquired, with a total value of HRK 4,271.45 million (6.4%); and
- **through ATMs:** 0.5 million transactions (0.15%) were acquired, with a total value of HRK 35.36 million (0.05%) (most frequently the purchase of phone vouchers, plane tickets, etc.).

The average value of transactions of the acquiring of payment transactions for the purchases of goods and services, executed using payment cards of Croatian issuers in 2020 stood at:

- **through EFTPOS terminals:** HRK 180;
- **through the Internet:** HRK 285; and
- **through ATMs:** HRK 65.

**Figure 23** Total number and value of acquiring transactions for the purchases of goods and services



Note: Data refer to the total number and value of transactions of the acquiring of Croatian issuers' payment cards for the purchases of goods and services.  
Source: CNB.

Of the total transactions of the acquiring of payment transactions for the purchases of goods and services, executed using payment cards of Croatian issuers (Figure 23):

- **consumers:** 347.55 million transactions (95%) with a total value of HRK 60,688.19 million (89%) were acquired; and
- **non-consumers:** 14.74 million transactions (5%) with a total value of HRK 6,044.67 million were acquired (11%).

## Cash withdrawals

'Cash withdrawals' covers the transactions of the acquiring of transactions for cash withdrawals, executed using payment cards through ATMs, EFTPOS terminals and EFTPOS terminals for withdrawal and deposit using a payment card and other means (over the counter, certain applications, etc.).

In all, 91.39 million transactions of the acquiring of payment transactions of cash withdrawals, executed using payment cards of Croatian issuers, worth a total of HRK 82,388.83 million, were executed in 2020.

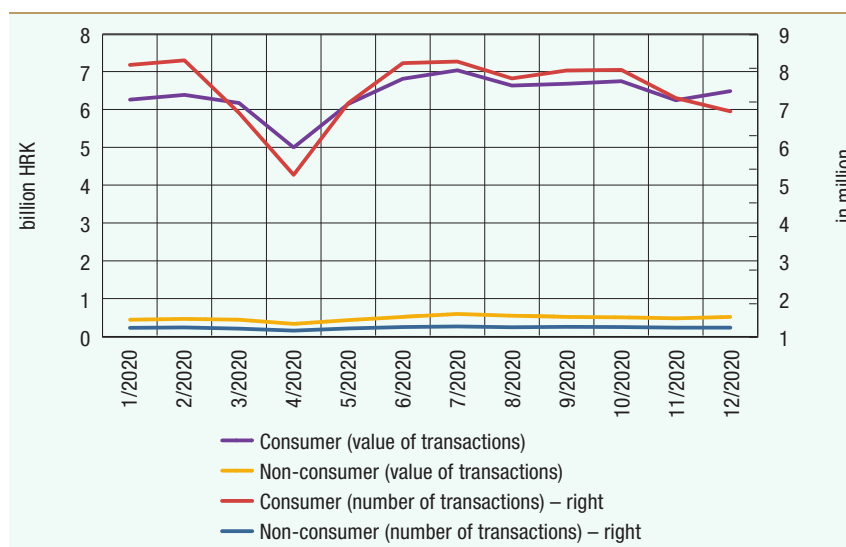
Of all the transactions of the acquiring of payment transactions of cash withdrawals, executed using payment cards issued in the RC:

- **through ATMs:** 89.01 million transactions (97.40%) with a total value of HRK 78,753.41 million (95.59%) were acquired;
- **through EFTPOS terminals for withdrawal and deposit:** 2.34 million transactions (2.56%) with a total value of HRK 3,556.87 million (4.32%) were acquired;
- **through EFTPOS terminals:** 0.0096 million transactions (0.005%) with a total value of HRK 4.01 million (0.005%) were acquired; and
- **through other means:** 0.0279 million transactions (0.03%), with a total value of HRK 74.5 million (0.09%).

The average value of the transactions of acquiring of payment transactions of cash withdrawals executed using payment cards issued in the RC in 2020 stood at:

- **through ATMs:** HRK 885;
- **through EFTPOS terminals for withdrawal and deposit:** HRK 1,519;
- **through EFTPOS terminals:** HRK 416; and
- **other:** HRK 2,668.

**Figure 24** Total number and value of acquiring transactions for cash withdrawals



Note: Data refer to the total number and value of transactions of acquiring of Croatian issuers' payment cards for cash withdrawals.

Source: CNB.

Of all the transactions of the acquiring of payment transactions of cash withdrawals executed using payment cards of Croatian issuers, using payment cards (Figure 24):

- **consumers:** 88.27 million transactions (97%) were acquired, with a total value of HRK 76,599.98 million (93%); and
- **non-consumers:** 3.12 million transactions (3%) were acquired, with a total value of HRK 5,788.84 million (7%).

## Cash deposits

‘Cash deposits’ covers payment transactions of the acquiring of payment transactions for cash deposits executed using payment cards through ATMs and EFTPOS terminals for withdrawal and deposit.

In all, 5.54 million transactions of the acquiring of payment transactions for cash deposits, executed using payment cards of Croatian issuers, worth a total of HRK 14,532.22 million, were recorded in 2020.

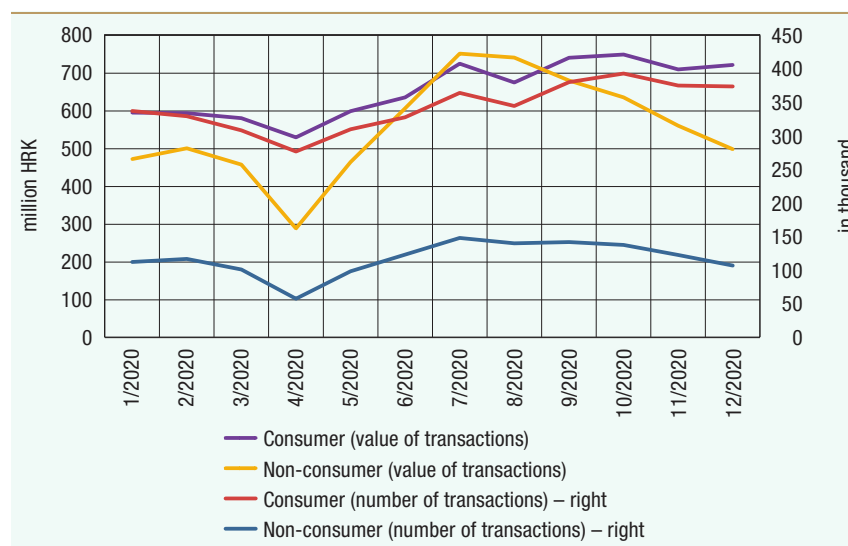
Of all the transactions of the acquiring of payment transactions for cash deposits executed using payment cards issued in the RC:

- **through ATMs:** 5.25 million transactions (94.71%) were acquired, with a total value of HRK 13,364.79 million (91.97%); and
- **through EFTPOS terminals for withdrawal and deposit:** 0.29 million transactions (5.29%) were acquired, with a total value of HRK 1,167.42 million (8.03%).

The average value of transactions of the acquiring of payment transactions for cash deposits executed using payment cards issued in the RC in 2020 stood at:

- **through ATMs:** HRK 2,545; and
- **through EFTPOS terminals for withdrawal and deposit:** HRK 3,977.

**Figure 25** Total number and value of acquiring transactions for cash deposits



Note: Data refer to the total number and value of transactions of the acquiring of Croatian issuers' payment cards for cash deposits.

Source: CNB.

Of all the transactions of the acquiring of payment transactions for cash deposits, executed using payment cards of Croatian issuers, using payment cards (Figure 25):

- **consumers:** 4.13 million transactions (74%) with a total value of HRK 7,863.81 million (54%) were acquired;
- **non-consumers:** 1.42 million transactions (26%), with a total value of HRK 6,668.41 million (46%) were acquired.

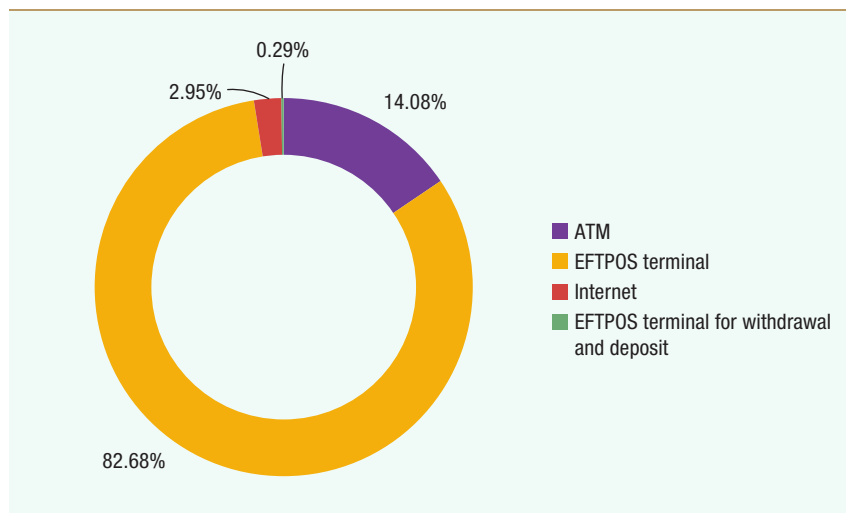
### 5.1.2 Acquiring of payment transactions executed using payment cards issued abroad

This chapter shows statistical data on the number and value of transactions of the acquiring of payment transactions executed using payment cards issued outside the RC, i.e. of foreign issuers.

In 2020, 33.85 million transactions of the acquiring of payment transactions were executed using payment cards of foreign issuers, with a total value of HRK 16,250.46 million. Thus, due to the pandemic, the total number of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers decreased by 47%, and their value decreased by 51% in 2020 from 2019.

In the first three months of 2020, the value of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers on average monthly stood at HRK 459.98 million. Also,

**Figure 26** Number of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers by accepting devices for payment cards

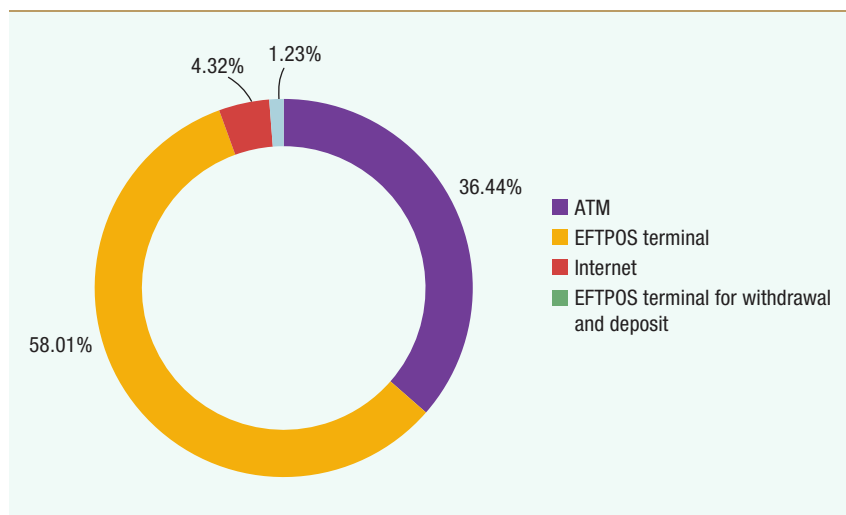


Note: Data refer to the total number of transactions of the acquiring of payment cards of foreign issuers in 2020.  
Source: CNB.

from an overview of the value of acquiring transactions it is evident that the holders of payment cards issued abroad primarily used EFTPOS terminals (Figures 26 and 27).

**Figure 27** Value of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers by accepting devices for payment cards

in HRK



Note: Data refer to the total value of transactions of the acquiring of payment cards of foreign issuers in 2020.

Source: CNB.

Of all the transactions of the acquiring of payment transactions executed using payment cards of foreign issuers in 2020:

- **through ATMs:** 4.8 million transactions with a total value of HRK 5,921.2 million were acquired;
- **through EFTPOS terminals:** 28 million transactions with a total value of HRK 9,427.8 million were acquired;
- **through the Internet:** 1 million transactions with a total value of HRK 702 million were acquired;
- **through EFTPOS terminals for withdrawal and deposit:** 0.1 million transactions with a total value of HRK 199.4 million were acquired.

The acquiring of payment transactions executed with payment cards of foreign issuers in 2020 relative to 2019.

The average value of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers stood at:

- **through EFTPOS terminals:** HRK 337;
- **through the Internet:** HRK 702;
- **through ATMs:** HRK 1,242.47; and
- **through EFTPOS terminals for withdrawal and deposit:** HRK 2,042.

In 2020, in all 28.98 million (86%) transactions of the acquiring of payment transactions of the purchases of goods and services, executed using payment cards of foreign issuers, were recorded, with a total value of HRK 10,130.24 million (62%), and 4.8 million (14%) transactions of the acquiring of payment transactions of cash withdrawals, executed using payment cards, with a total value of HRK 6,120.22 million (38%).

**Table 12** Number and value of transactions of the acquiring of payment cards of foreign issuers by accepting devices for payment cards and cardholders

User	Payment transaction	ATM	EFTPOS terminal	Internet	EFTPOS terminal for withdrawal and deposit	TOTAL	
Consumer	Number of transactions	Purchases of goods and services	5,144	26,737,166	953,188	27,695,498	
		Cash withdrawals	4,693,947			94,413	4,788,360
	Value of transactions	Purchases of goods and services	449,086	8,788,234,900	628,941,278		9,417,625,264
		Cash withdrawals	5,814,316,776			191,447,347	6,005,764,123
Non-consumer	Number of transactions	Purchases of goods and services	88	1,245,692	45,770		1,291,550
		Cash withdrawals	66,511			3,240	69,751
	Value of transactions	Purchases of goods and services	8,738	639,588,155	73,022,746		712,619,639
		Cash withdrawals	106,475,206			7,977,798	114,453,004
Total number of transactions	Purchases of goods and services	5,232	27,982,858	998,958	0	28,987,048	
	Cash withdrawals	4,760,458	0	0	97,653	4,858,111	
	<b>Total</b>	<b>4,765,690</b>	<b>27,982,858</b>	<b>998,958</b>	<b>97,653</b>	<b>33,845,159</b>	
Total value of transactions	Purchases of goods and services	457,824	9,427,823,055	701,964,024	0	10,130,244,903	
	Cash withdrawals	5,920,791,982	0	0	199,425,145	6,120,217,127	
	<b>Total</b>	<b>5,921,249,806</b>	<b>9,427,823,055</b>	<b>701,964,024</b>	<b>199,425,145</b>	<b>16,250,462,030</b>	

Note: Data refer to the total number and value of transactions of the acquiring of payment cards of foreign issuers in 2020.

Source: CNB.

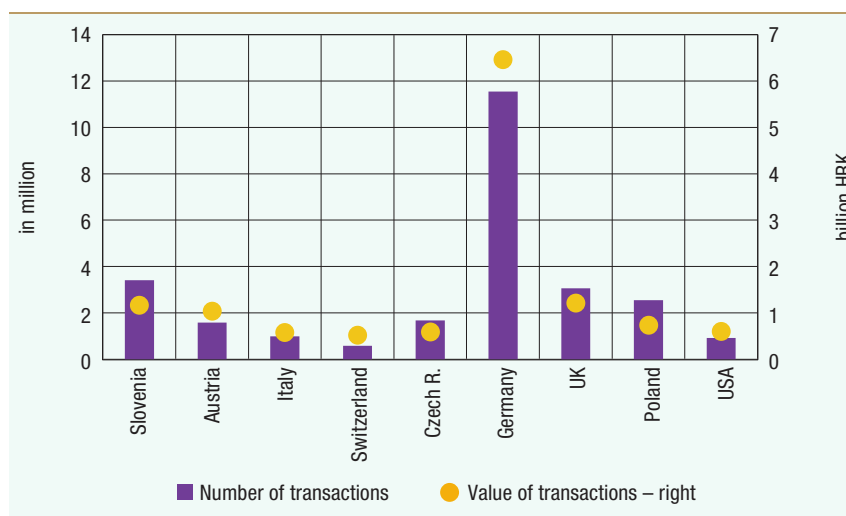
In 2020, acquiring transactions executed with the use of payment cards of foreign issuers from a total of 177 countries were recorded. The acquiring of payment cards issued in the nine most represented countries (Germany, Austria, Italy, the United Kingdom, Slovenia, the Netherlands, Poland, the Czech Republic and the United States), accounted for 78% of the total number of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers and for as much as 79% of the total value of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers.

In 2020, of the nine countries, the largest value of transactions of the acquiring of payment transactions executed by payment cards was accounted for by payment cards issued in Germany, standing at HRK 6,459.84 million. In the nine countries the largest average value by



card transaction in the amount of HRK 890 was generated using Swiss issuers' cards, and the smallest using Polish issuers' cards (Figure 28).

**Figure 28** Number and value of transactions of the acquiring of payment cards of foreign issuers by the country of issuer – the nine most represented countries



Note: Data refer to the total number and value of the acquiring of payment cards of foreign issuers in the RC.  
Source: CNB.

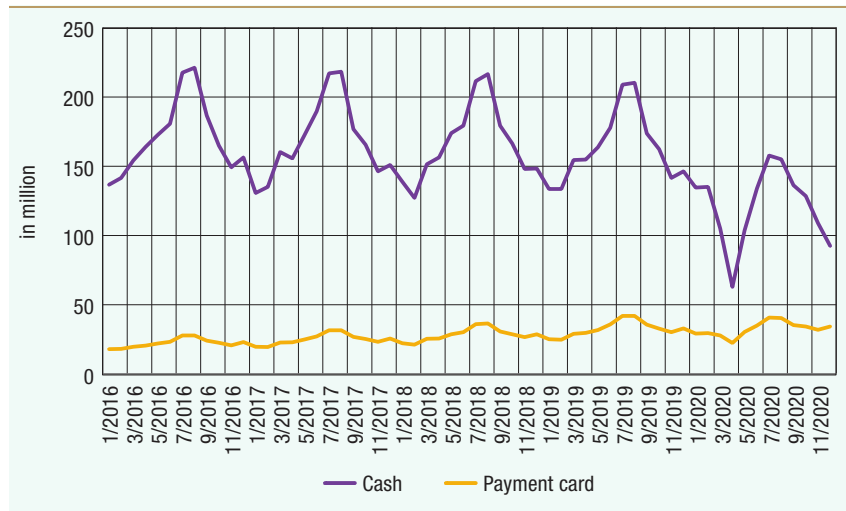
## 5.2 Comparison of the use of payment cards and of cash

The obligors of fiscalisation<sup>8</sup> issued a total of 1,876.07 million invoices in 2020, with a total value of HRK 169,037.77 million. Of the total number of issued invoices, 78% of them were paid in cash, 21% by payment cards and 1% by other means (through transaction accounts, cheques, etc.). Of the total value of issued invoices, 50% relates to cash payments, 45% to payment by payment cards and 5% to payment by other means.

Figures 29 and 30 give a comparative presentation of the number and value of invoices issued that were paid in cash in the RC and the number and value of card-based payment transactions of the purchase of goods or services executed using the payment cards of Croatian and foreign issuers. The presentation shows that cash as means of payment is also considerably more represented than payment cards in the number and value of transactions in 2020. In 2020, due to the pandemic, the total number of invoices issued, decreased by 21%, and the value of fiscalised invoices decreased by 14% from 2019. In 2020, relative to 2019, the number and value of invoices paid by cash decreased by 26% and 10% respectively, while the number of card-based payment transactions of the purchase of goods or services only decreased by 0.1% and their value decreased by 10% relative to 2019.

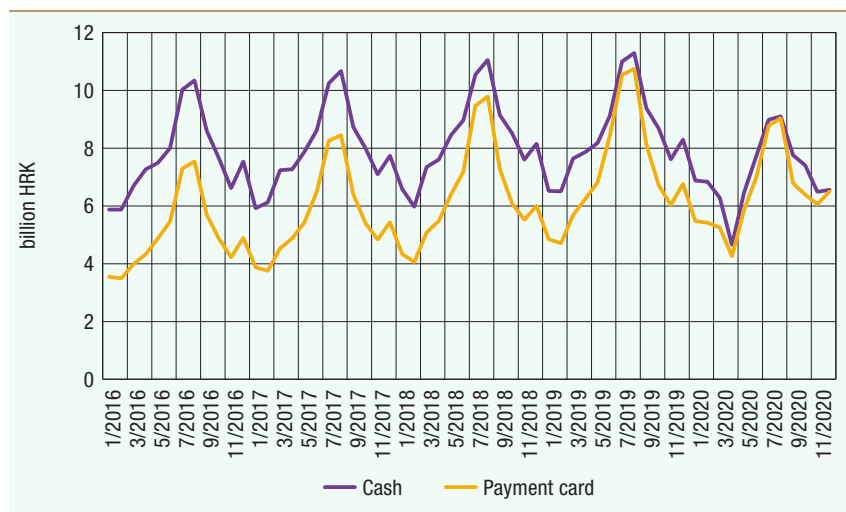
<sup>8</sup> According to the data of the Ministry of Finance of the RC – Tax Administration, collected based on the Cash Transaction Fiscalisation Act (Official Gazette 133/2012).

**Figure 29** Comparison of the use of different payment instruments – number



Notes: Data refer to the total number during a single reporting period. Data for cash refer to the total number of invoices paid in cash. Data for payment cards refer to the total number of card-based payment transactions of the purchase of goods or services using Croatian and foreign cards. Sources: Ministry of Finance of the RC – Tax Administration and CNB.

**Figure 30** Comparison of the use of different payment instruments – value in HRK



Notes: Data refer to the total value during a single reporting period. Data for cash refer to the total value of invoices paid in cash in HRK. Data for payment cards refer to the total value of card-based payment transactions of the purchase of goods or services using Croatian and foreign cards. Sources: Ministry of Finance of the RC – Tax Administration and CNB.

The average value of a cash payment transaction in 2020 stood at HRK 59, and the average value of a national card-based payment transaction stood at HRK 196.

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## 6 Glossary

- **‘Card-based payment instrument’** means each payment instrument, including the card, mobile phone, computer or any other technological device with an appropriate payment application, enabling the payer to initiate card-based payment transactions other than credit transfers or direct debits referred to in Article 2 of Regulation (EU) No 260/2012 of the European Parliament and of the Council of 14 March 2012 establishing technical and business requirements for credit transfers and direct debits in euro and amending Regulation (EC) No 924/2009 (OJ L 94, 30.3.2012).
- **‘Card-based payment transaction’** means a service based on a payment card’s acquiring infrastructure and card scheme business rules to make a payment transaction by means of a debit or a credit card.
- **‘Card payment scheme’** means a set of functions, procedures, rules and devices enabling the holder of a payment card to effect a payment and/or cash withdrawal transaction with a payment service provider.
- **‘Charge card’** means a payment card in which at the moment a payment transaction is initiated, coverage in the payment account is not ensured, payment transactions most often being executed up to an approved credit line (limit). The user settles the expenses incurred by using a card with a charge function within a specified time interval in full at the end of a specified period, most frequently by a credit transfer.
- **‘Credit card’** means a payment card in which coverage on the payment account is not ensured, the user being approved a credit line (a limit) for the execution of the payment transaction. The payment card user can execute payments up to the amount of the approved credit line (the limit). The amount of each transaction executed with the use of a payment card with a credit function within a specified time interval is automatically divided into the agreed number of repayment instalments according to the agreed model.
- **‘Debit card’** means a payment card issued to payment account holders. The expenses incurred by this card are charged by debiting the payment account, most frequently immediately.
- **‘Delayed debit card’** means the payment card that is most frequently issued to payment account holders. At the moment a payment transaction is initiated, the coverage on the payment account is not ensured, and payment transactions can most often be executed up to an authorised limit. The total expenses incurred with the use of a payment card with a delayed debit function within a specified time interval are settled in full at the end of the specified time interval with the service of direct debit from the payment account.

- **‘International payment transaction’** means a payment transaction the execution of which involves two payment service providers one of which (of either the payee or the payer) operates in the RC, while the other payment service provider (of either the payer or the payee) operates in a third country or another member state.
- **‘Member state’** means a member state of the European Union and a contracting party to the Agreement on the European Economic Area.
- **‘National payment transaction’** means a payment transaction the execution of which involves a payer’s payment service provider and a payee’s payment service provider, or only one payment service provider, which operate in the RC.
- **‘Payment card’** means a device enabling its holder to make payments for goods and services either at an accepting device or remotely, and/or to access cash and/or other services at an ATM or another self-service device and to transfer funds and which enables payment transaction initiation and its execution within a card payment scheme.
- **‘Payment instrument’** means the placing, withdrawing or transferring of funds initiated by or on behalf and for the account of the payer or by the payee, regardless of any underlying obligations between the payer and the payee.
- **‘Payment service provider’** means the institution defined by Article 7 of the PSA.
- **‘Payment service provider – acquirer’** means the institution that ensures the acquiring of the payment transaction executed using a payment card.
- **‘Payment service provider – issuer’** means the institution that has issued the payment card.
- **‘Revolving card’** means a payment card in which at the moment a payment transaction is initiated the coverage on the payment account is not ensured, and the user is most often granted a revolving credit line (limit) for the execution of the payment transaction. The user pays the amount of expenses incurred by using the card with a revolving function within a specified time interval partially in a determined percentage of the specific spending.
- **‘Third country’** means any foreign country that is not a member state.

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