



HNB

EUROSYSTEM

# Payment Cards and Card Transactions

Payment Statistics

**2022**

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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  
**4** electronic money institutions  
**1** 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: **3,888,529**  
Registered business entities: **0.324** million  
Crafts and trades and freelance occupations: **91,326**  
Surface: **56,594** km<sup>2</sup>

### Number of cardholders

Consumers: **3.509** million  
Business entities (non-consumers): **0.259** million

### Number of payment cards

Debit: **6.926** million  
Credit: **1.735** million

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

Number: **625.44** million  
Value: HRK **210,241.83** million

### Infrastructure

EFTPOS terminals: **125,677**  
ATMs: **4,184**

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# 1 Introduction

Payment cards, used to initiate payment transactions, have been the most frequently used payment instrument for several years. In the Republic of Croatia (hereinafter referred to as “RC”), the average citizen has more than two payment cards in his/her wallet, and a single individual will often have several debit and credit cards.

On 31 December 2022, in all, 21 credit institutions and 2 electronic money institutions issued payment cards in the RC, and their users executed a total of 682.34 million card-based payment transactions with a total value of HRK 230,665.45 million. In 2022, the number of total card-based payment transactions increased by 13.1%, their value having increased by 14.6% from 2021.

In the past years the cards market in the RC has also witnessed changes that impact payment methods. Certain payment methods today are unrecognisable when compared to payment methods that were dominant ten years ago. For example, cards are added to different digital wallets used to pay for goods and services, applications are used that enable the division of costs in payment, groceries are purchased through the Internet more often, smart watches are used to initiate payments, and so on. A payment card is also more frequently used for the purchases through the Internet so that, in the past three years, the total number of transactions of the purchases of goods and services executed through the Internet or a mobile phone using payment cards increased by 30% and the total value increased by as much as 48% (the value of transactions increased from HRK 4,875.94m in 2019 to HRK 7,251.43m in 2022).

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 the number of transactions paid using payment cards has been growing at a slow but steady pace relative to the number of cash payment transactions in the last few years. However, with regard to the ratio between card and cash payments in the past period, approximately every fourth fiscalised invoice was paid by card and the other three by cash. Nevertheless, consumers in the RC more frequently choose payment cards as means of payment of invoices (in particular invoices with larger amounts) so that the share of invoices paid by card could soon be in excess of one third.

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 2022, including a comparison of individual data with those for 2021, 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 pursuant to which the 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 of 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 (Official Gazette 66/2018 and 114/2022; hereinafter referred to as 'PSA') payment services in the Republic of Croatia 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 respecting 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 instruments report;
- Accounts report;
- Infrastructure report;
- Acquiring of payment instruments report; and
- Legal authority report.

The publication gives an overview of payment cards and card-based payment transactions for 2022 and includes a comparison of the data with those for 2021, 2020, 2019 and partially for 2018, based on statistical data collected in three reports: Issuing of payment instruments, Acquiring of payment instruments and Infrastructure.

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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

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



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 2022, 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; or
- transactions of the acquiring of payment transactions executed using payment cards – shown at a monthly or an annual level.

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 other 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

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

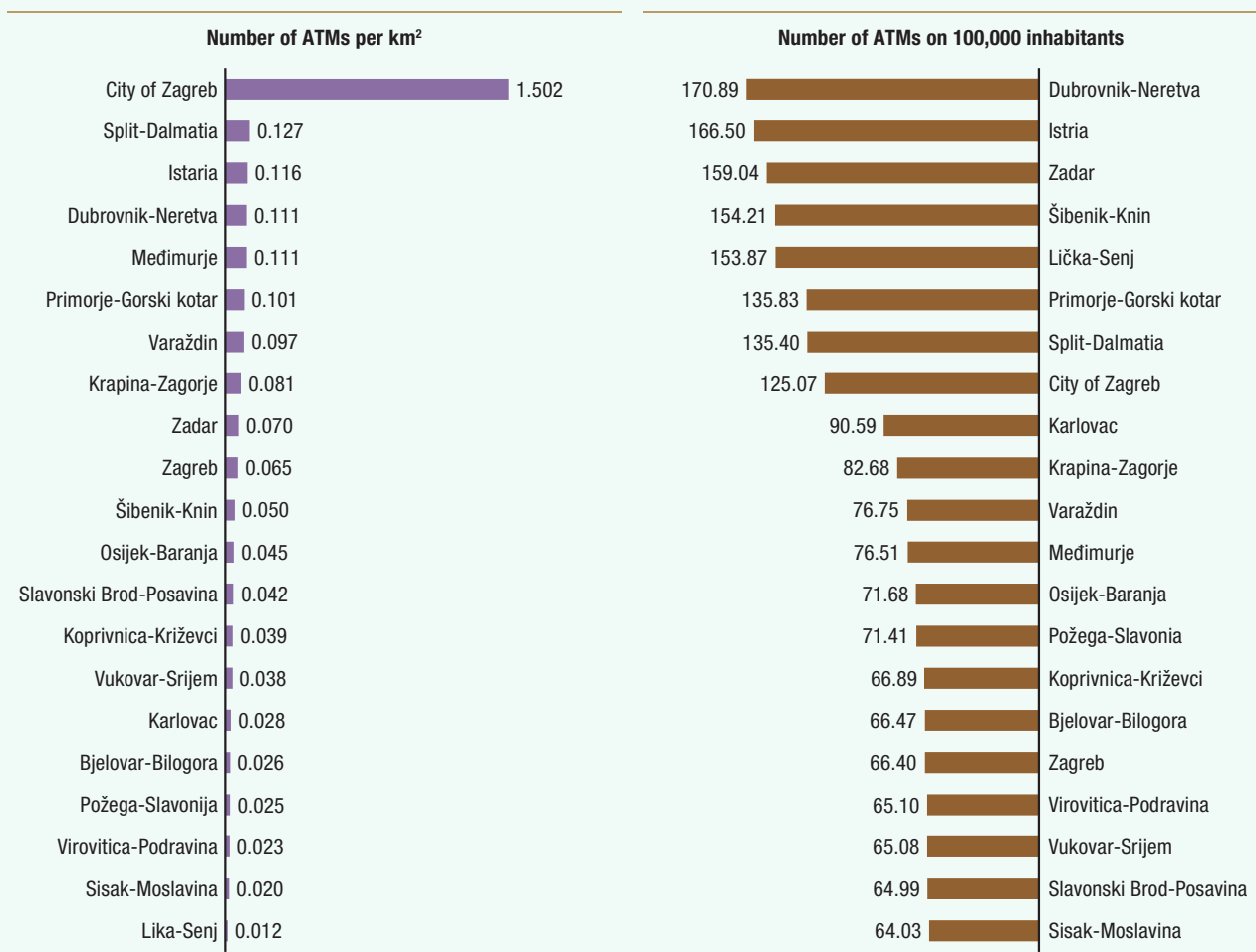
payee's payment service provider, or only one payment service provider, operating in the RC;

- **'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 2022



### ATMs and EFTPOS terminals in the RC

Total number of ATMs	4,184
Total number of EFTPOS terminals	125,677
Number of ATMs on 100,000 inhabitants	107.60
Number of EFTPOS terminals on 100,000 inhabitants	3,231.99
Number of ATMs per km <sup>2</sup>	0.07
Number of EFTPOS terminals per km <sup>2</sup>	2.22

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.

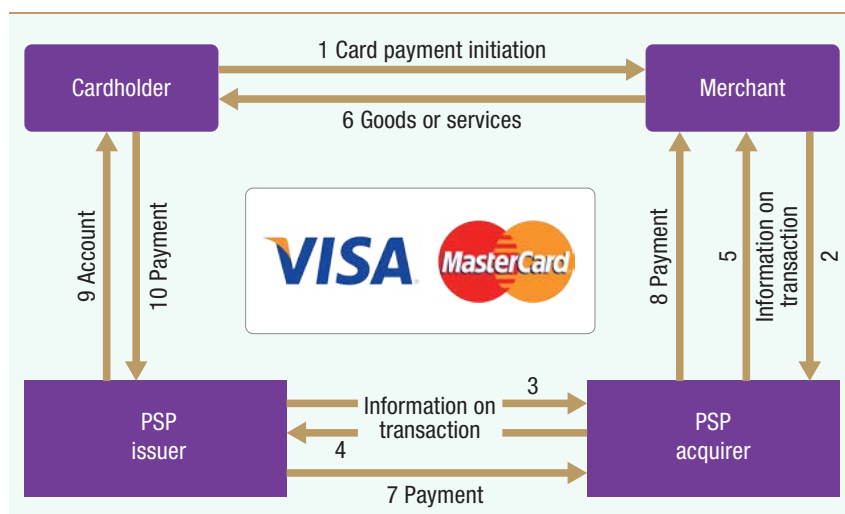
In the RC, two models of card schemes are recognised: the model with four stakeholders, i.e. the four-party card scheme and the model with three parties or stakeholders, i.e. the three-party card scheme.

### 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 issuer’s 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** among 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 to the acquirer the amount 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 2022, in all, 23 issuers/stakeholders of the four-party card scheme were recorded.

### Three-party card scheme in the RC

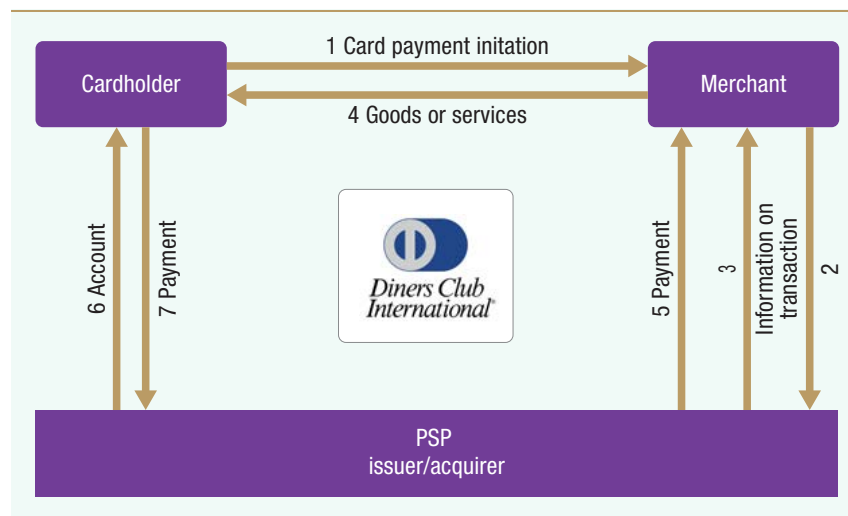
In the three-party card scheme in the RC the stakeholders are: the cardholder – payer, the merchant – payee, the payment service provider as the payment card issuer (hereinafter referred to as ‘issuer’), which is at the same time the payment service provider as the acquirer of a payment transaction executed 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 issuer’s payment card 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 acquirer and the issuer at a physical point of sale (EFTPOS terminal) with the 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 involving 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 2022: Diners Club International®.

## 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 2022, there were 130,279 terminals at which payment transactions executed using payment cards are acquired, of which 4,184 were ATMs, 125,677 EFTPOS were terminals, while there were 418 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. 2018	Total on 31 Dec. 2019	Total on 31 Dec. 2020	Total on 31 Dec. 2021	Total on 31 Dec. 2022
ATMs	5,159	5,446	4,894	4,692	4,184
EFTPOS terminals	114,361	111,172	107,654	118,731	125,677
EFTPOS terminals for withdrawal and deposit	967	940	682	420	418

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 2022, 4,184 active ATMs were recorded in the RC. The largest number of ATMs was recorded in the City of Zagreb (963) and the smallest number of ATMs in Požega-Slavonia County (46) (Table 2). On 31 December 2022, the total number of ATMs in the RC was temporarily decreased due to the introduction of the euro and the process of adjustment of ATMs to the new euro banknote dimensions (Table 1).

**Table 2** Number of ATMs by counties in the RC  
on 31 December 2022

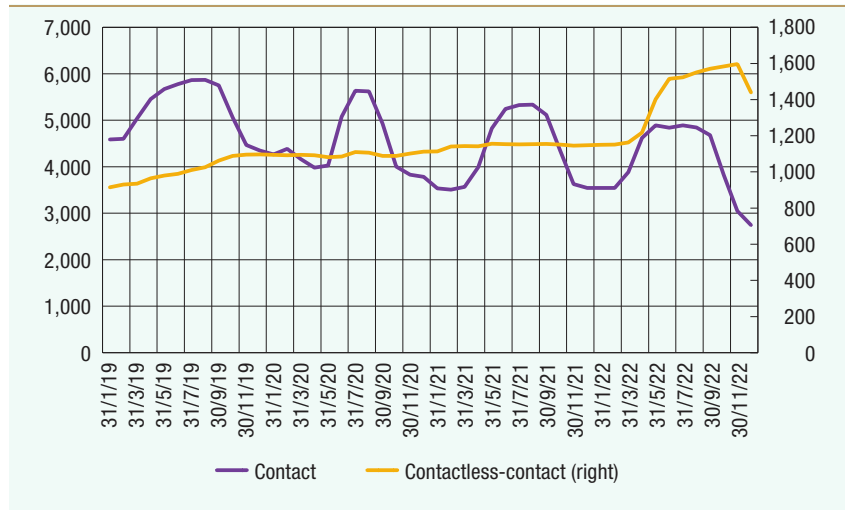
County	Total number of ATMs
County of Zagreb	200
Krapina-Zagorje	100
Sisak-Moslavina	90
Karlovac	102
Varaždin	123
Koprivnica-Križevci	68
Bjelovar-Bilogora	68
Primorje-Gorski kotar	362
Lika-Senj	66
Virovitica-Podravina	46
Požega-Slavonia	46
Slavonski Brod-Posavina	85
Zadar	255
Osijek-Baranja	186
Šibenik-Knin	149
Vukovar-Srijem	94
Split-Dalmatia	576
Istria	326
Dubrovnik-Neretva	198
Međimurje	81
City of Zagreb	963
<b>Total</b>	<b>4,184</b>

Source: CNB.

On 31 December 2022, out of the total number of ATMs, 1,110 were covered by a video surveillance system and 717 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.

ATMs can be divided into contact and contactless-contact ATMs. Contact ATMs only support the acquiring of payment cards, which contain records based only on a chip and/or magnetic stripe. Contactless-contact ATMs 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.).

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



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

Data shown in Figure 1 also point to an upward trend in the number of contactless-contact ATMs, that is, the ATMs that only require tapping the card on a contactless-enabled card reader and the PIN to be entered within a limited time. The described possibility is only available to users of cards with the contactless functionality. Of the total number of ATMs in the RC, 34% (in all, 1,440) are contactless ATMs, that is, they can be used by simply tapping the card and then entering the PIN.

In addition, 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. The largest number of active ATMs (6,413) was recorded in July.

## 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 2022, in all 125,677 EFTPOS terminals were recorded, a 6% increase from 31 December 2021 (Table 1).

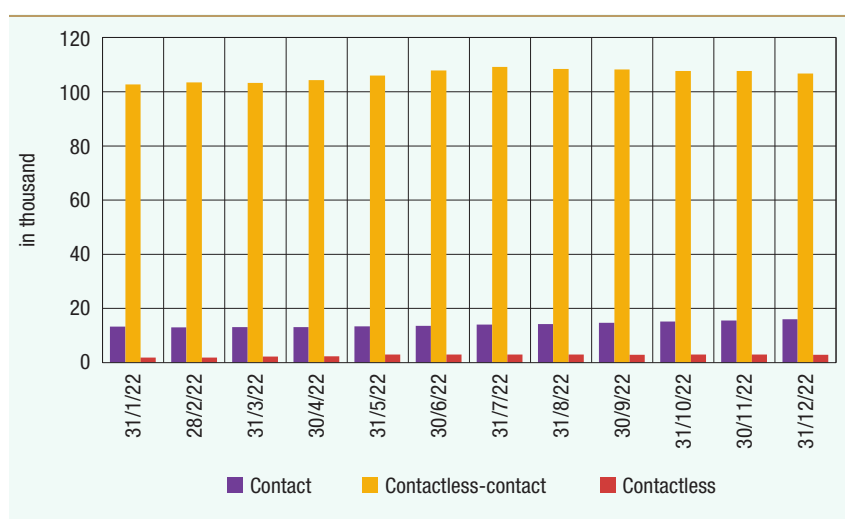
EFTPOS terminals can be divided into contact, contactless-contact and contactless terminals. Contact EFTPOS terminals support the acquiring of payment cards containing records based only on a chip and/or magnetic stripe. Contactless-contact EFTPOS terminals support the acquiring of payment cards, which,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

As in 2021, in 2022, within the category of EFTPOS terminals, the number of contactless-contact EFTPOS terminals continued to increase from 103,615, as recorded on 31 December 2021, to 106,684, as recorded on 31 December 2022, accounting for 85% of all EFTPOS terminals. The implementation of contactless EFTPOS terminals (terminals that do not enable the initiation of a transaction by inserting a card into a POS or using a magnetic stripe) was already 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 2,929 of them were recorded on 31 December 2022, accounting for 2.3% of all EFTPOS terminals.

On 31 December 2022, there were 16,064 contact EFTPOS terminals (Figures 2 and 3).

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

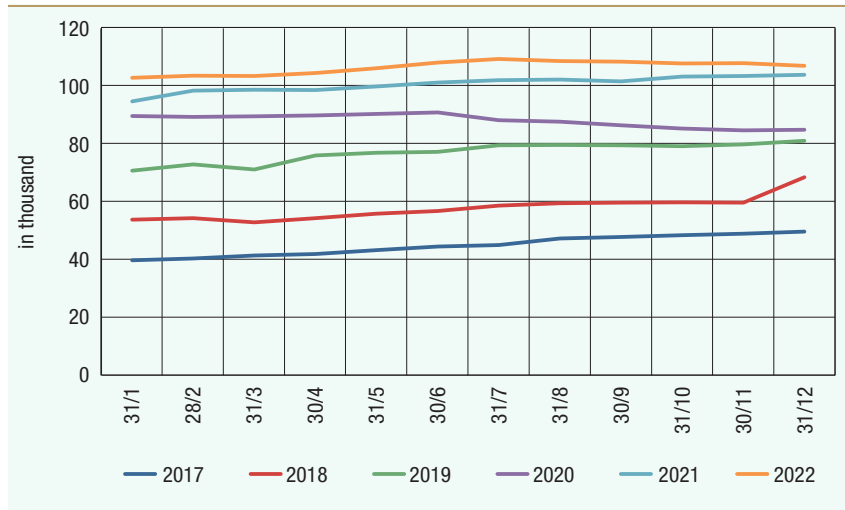


Note: Data refer to the balance on the last day of each reporting month in 2022.

Source: CNB.

The upward trend in the number of contactless-contact terminals has been recorded since January 2014. On 31 December 2022, 106,684 contactless-contact EFTPOS terminals were recorded, accounting for a 3% increase from 31 December 2021 (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, Hrvatska pošta, etc.).

The number of such terminals in the RC is decreasing, as confirmed by the fact that on 31 December 2022, in all 418 EFTPOS terminals for withdrawal and deposit were recorded (Table 1).

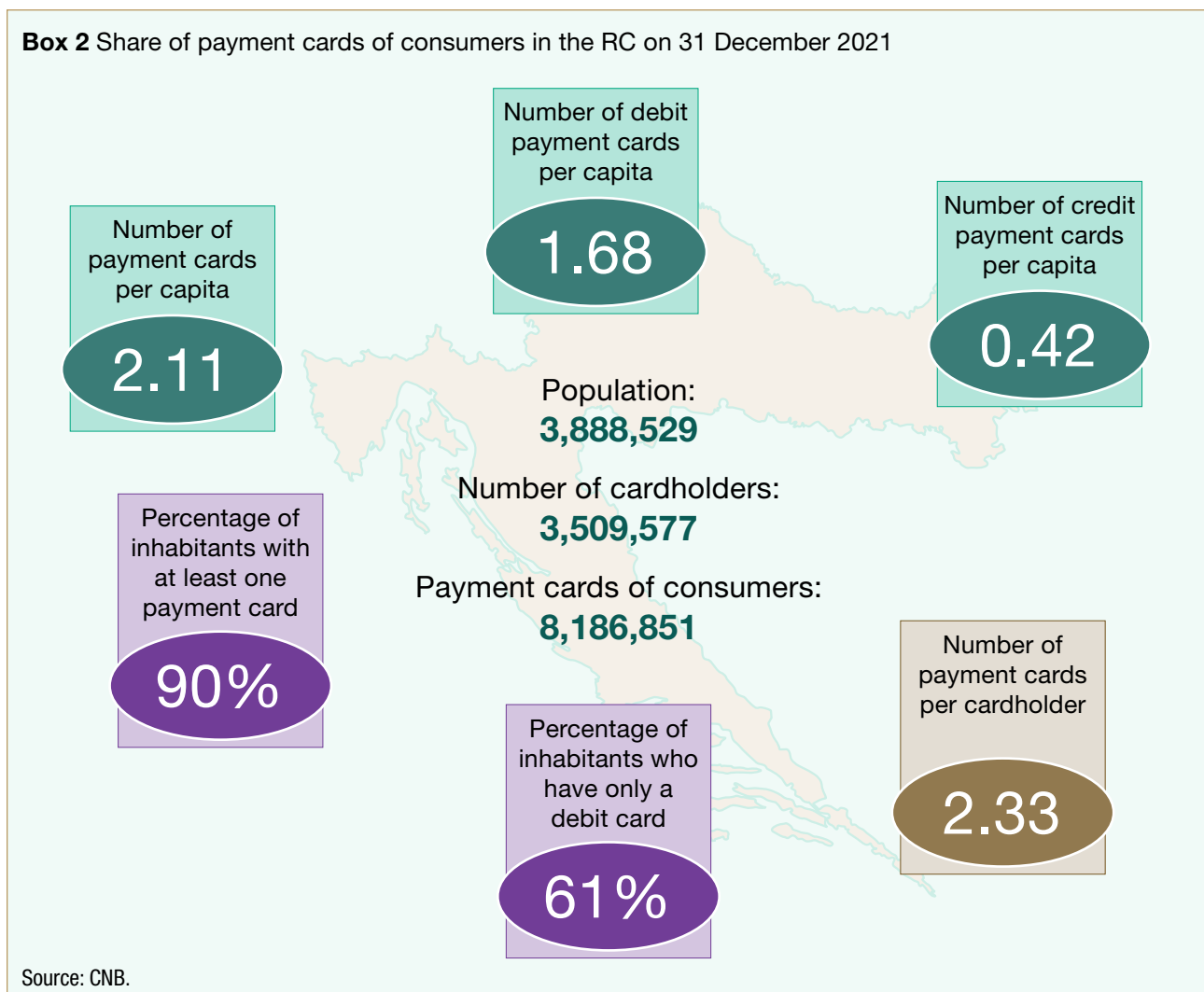
### 3 Payment cards market in the RC

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 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.

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



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

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).

---

## 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.

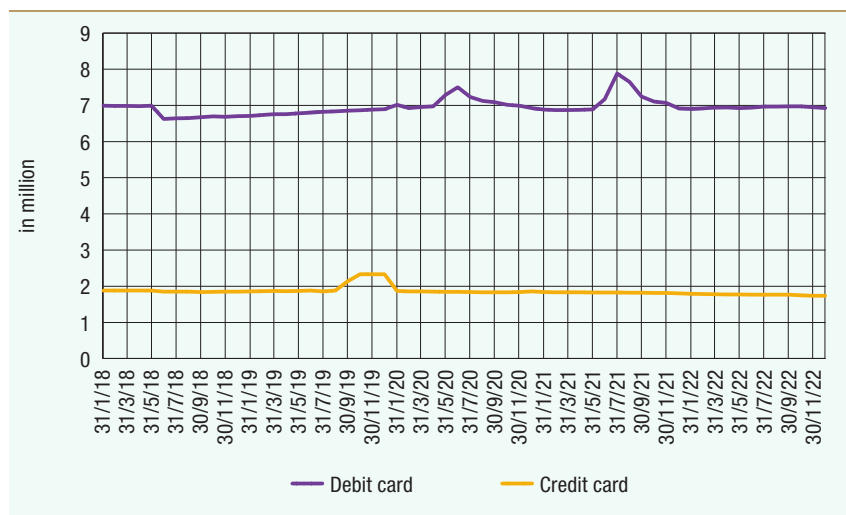
The basic breakdown of payment cards is according to maturity and settlement of expenses, i.e. according to the moment when the holder settles the expenses incurred on a payment card. Accordingly, payment cards are divided into debit (pay now), credit (pay later) and prepaid cards<sup>4</sup> (pay in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

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

On 31 December 2022, a total of 8,662,571 payment cards of consumers and business entities (non-consumers) were recorded in the RC, of which 6,926,859 were debit cards (80%) and 1,735,712 were credit cards (20%). On 31 December 2022, the total number of payment cards decreased by 0.7% from 31 December 2021. In the same period, the number of debit cards increased by 0.01% and the number of credit cards decreased by 3.7% (Figure 4).

**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 2022, a total of 8,186,851 payment cards issued to consumers were recorded in the RC, 95% of which were basic payment cards (Table 3).

**Table 3** Number of payment cards issued in the RC by user on 31 December 2022

Type of payment card	Consumer		Non-consumer	Total
	Basic	Additional	Basic	
Debit card	5,599,943	941,008	385,908	6,926,859
Credit card	1,540,026	105,874	89,812	1,735,712
<b>Total</b>	<b>7,139,969</b>	<b>1,046,882</b>	<b>475,720</b>	<b>8,662,571</b>

Note: Data refer to the total number of payment cards on 31 December 2022.

Source: CNB.

As explained in the introduction, payment cards can be 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 2022, of the total number of cards in the RC, the most represented were debit cards with the share of 80%, followed by charge cards with the share of 8%, cards with the delayed debit function with the share of 5% and revolving cards with a 4% 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 2022

Type of payment card	Number of payment cards	Share
Debit card	6,926,859	80%
Charge card	653,834	8%
Delayed debit card	420,625	5%
Revolving card	388,382	4%
Credit card	173,410	2%
Other/membership	99,461	1%
<b>Total</b>	<b>8,662,571</b>	<b>100%</b>

Note: Data refer to the total number of payment cards on 31 December 2022.  
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 payment cards, on 31 December 2022, 85,715 of them were card stickers, of which 72,385 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.

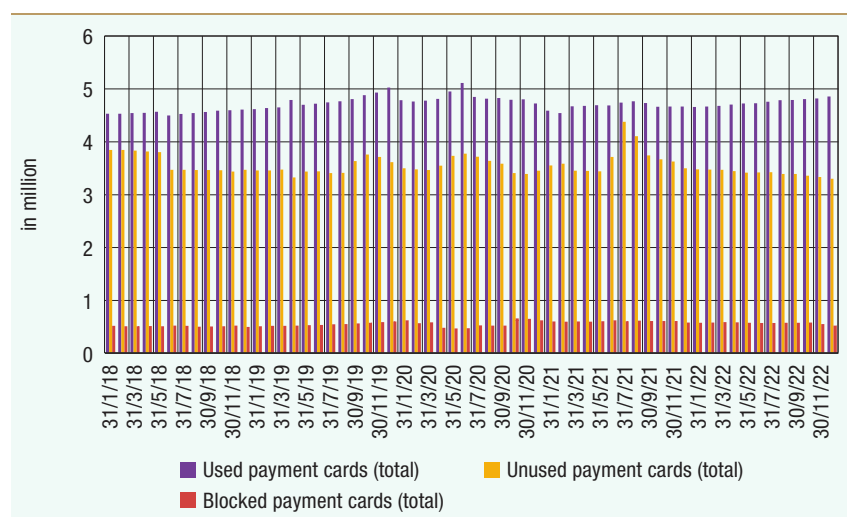
In 2022, the average monthly number of:

- used payment cards stood at 4.74 million;
- unused payment cards stood at 3.40 million;
- blocked payment cards stood at 0.56 million.

The data on payment cards received show that used cards on average accounted for 54% per month of the total number of payment cards in 2022, that is, of the total number of payment cards issued in the RC, almost every second card has been unused (39%) 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.

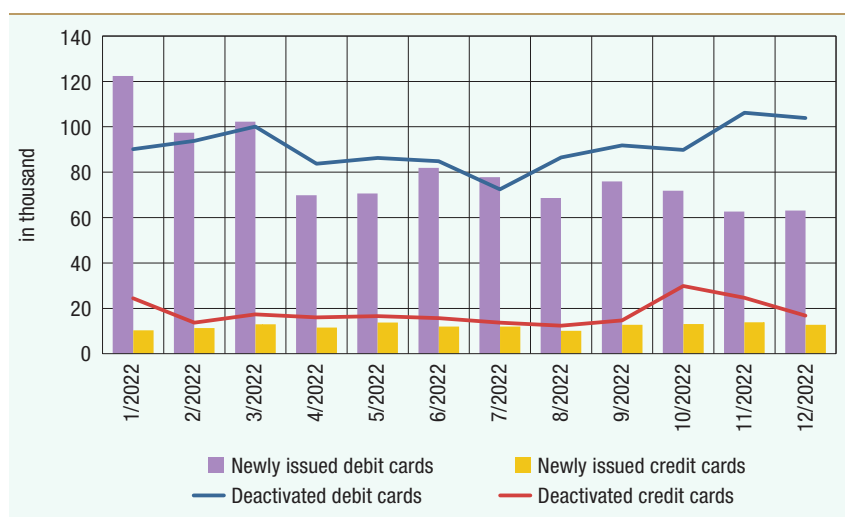
In 2022, a total of 1,110,988 payment cards were newly issued, of which 964,417 or 87% were debit cards and 146,571 or 13% were credit cards (Figure 6).

‘Deactivated payment card’ means a payment card the use of which for the execution of card-based payment transactions has been permanently

disabled. Data on payment cards with the status of ‘deactivated’ refer to cards deactivated throughout the reporting month.

In 2022, a total of 1,305,182 payment cards were deactivated, of which 1,089,510 or 83% were debit cards and 215,672 or 17% 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 2022.

Source: CNB.

### 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 2022 stood at 8,515,910, accounting for 98.31% of the total number of all payment cards.

## Contactless and contact payment cards

According to the technology of payment transaction initiation, 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 2022

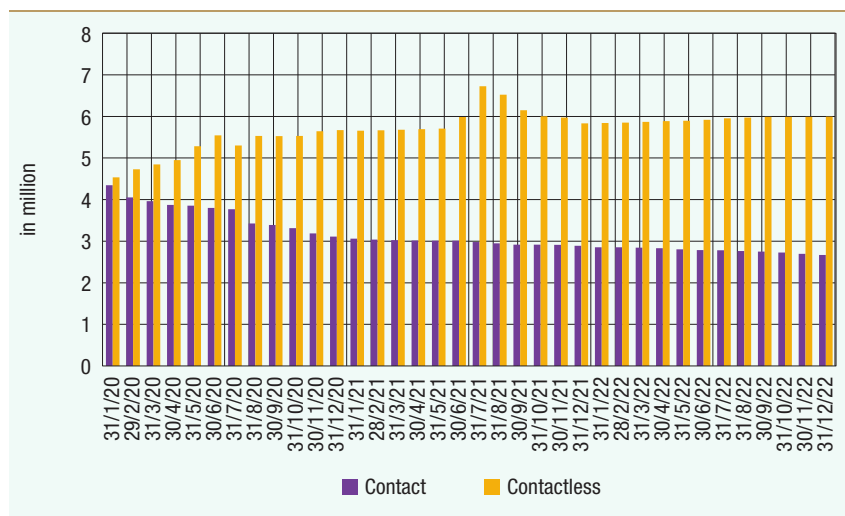
Type of payment card	Contact	Contactless	Total
Debit card	2,258,551	4,668,308	6,926,859
Credit card	410,488	1,325,224	1,735,712
<b>Total</b>	<b>2,669,039</b>	<b>5,993,532</b>	<b>8,662,571</b>

Note: Data refer to the total number of payment cards on 31 December 2022.  
Source: CNB.

On 31 December 2022, of the total number of payment cards, 2,669,039 or 30.81% of them were contact and 5,993,532, i.e. 69.19% were contactless (Table 5). These data confirm that in 2022, the trend of the issuance of contactless payment cards continued in the RC. Of the total number of contactless payment cards, 4,668,308 or 77.9% were debit cards (Figure 7). It can be assumed that further growth in the share of contactless cards will also depend on the dynamics of the regular replacement of old cards by new ones by the issuer.

In 2022, the share of the number of contact payment cards continued to decrease from 33% (2,890,160), as recorded on 31 December 2021 to 30.81% (2,669,039), as recorded on 31 December 2022.

**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.

## 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 2022, a total of 3,509,577 cardholders (consumers) were recorded, i.e. of the total RC population of 3,888,529<sup>5</sup>, 90.3% had at least one payment card.

Payment cards issued by only one issuer are held by 69% of all cardholders (consumers), cards issued by two issuers are held by 24%, and payment cards issued by three or more issuers are held by 6% of consumers (Table 6).

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

**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	2,418,332	3,763,822	422,597	4,186,419
Two	838,644	1,941,652	771,105	2,712,757
Three	205,272	639,569	331,776	971,345
Four	39,634	156,588	94,741	251,329
Five and more	7,695	39,320	25,681	65,001
<b>Total</b>	<b>3,509,577</b>	<b>6,540,951</b>	<b>1,645,900</b>	<b>8,186,851</b>

Note: Data refer to the total number on 31 December 2022.

Source: CNB.

On 31 December 2022, the total number of cardholders (consumers) holding a debit card stood at 3,489,972, i.e. 89.9% of the population of the RC held at least one debit card. In addition, on 31 December 2022 the number of cardholders holding only a debit card stood at 2,362,229, i.e. 61% 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 1,147,348 or 29.5% of the population of the RC.

On 31 December 2022, of the total number of cardholders (consumers) 35.75% held only one payment card, 29.92% two and 16.83% three payment cards.

### Business entities (non-consumers)

On 31 December 2022, a total of 259,737 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), 88% of them, held payment cards issued by one issuer (Table 7).

Of the total number of cardholders (non-consumers) 65.31% held only one payment card, and 19.46% two payment cards.

**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	227,433	294,731	28,858	323,589
Two	25,678	61,774	38,409	100,183
Three	5,126	20,415	14,911	35,326
Four	1,212	6,116	5,797	11,913
Five and more	288	2,872	1,837	4,709
<b>Total</b>	<b>259,737</b>	<b>385,908</b>	<b>89,812</b>	<b>475,720</b>

Note: Data refer to the total number on 31 December 2022.

Source: CNB.

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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.

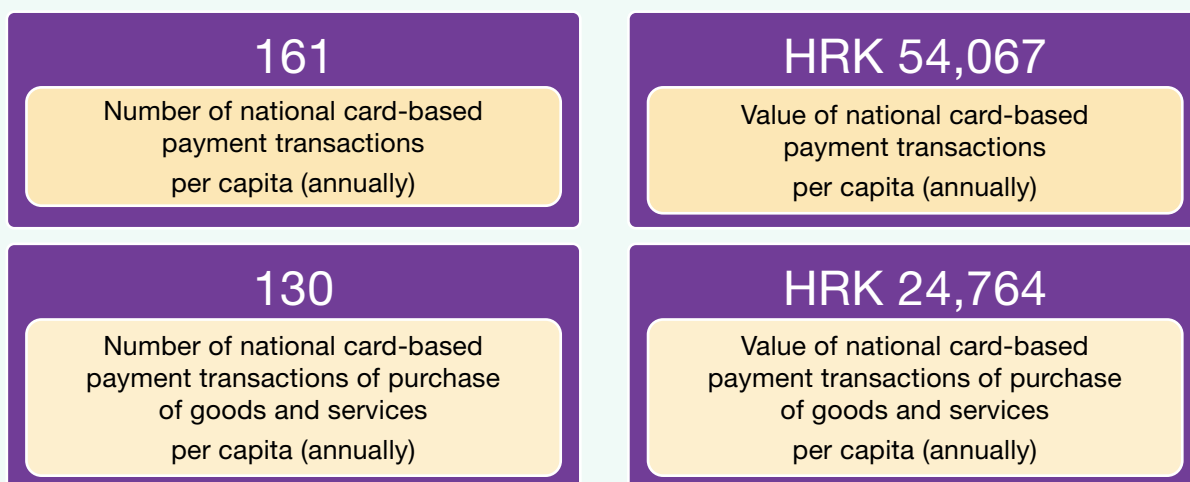


Along with the development of the payment cards market, card-based payment transactions have also developed, for they are no longer restricted to the transactions of the purchases of goods and services through EFTPOS terminals and transactions of cash withdrawal and deposit at ATMs, but also cover the 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 2022



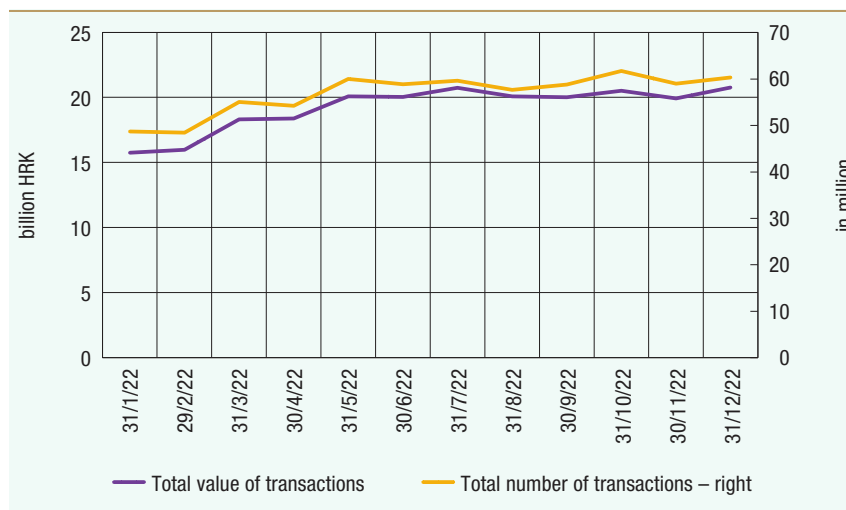
Source: CNB.

## 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 2022, 21 credit institutions and 2 electronic money institutions issued payment cards in the RC, and their users executed a total of 682.34 million card-based payment transactions with a total value of HRK

**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 2022.

Source: CNB.

230,665.45 million (Figure 8). In 2022, the number of total card-based payment transactions increased by 13.1%, and their value increased by 14.6% from 2021.

The average monthly number of card-based payment transactions executed using payment cards issued in the RC stood at 56.86 million, and the average monthly value of transactions at HRK 19,222.12 million.

On average, 11.98 card-based payment transactions were executed monthly per used payment card issued in the RC, with a total value of HRK 4,048.09.

#### 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;
- contractual debits charged through a payment card; and
- fees, membership fees, interest and similar, charged from an issuer through a payment card.

A total of 625.44 million national card-based payment transactions worth a total of HRK 210,241.83 million were executed in the RC in 2022. In 2022, the total number of national card-based payment transactions increased by 11.34%, and their value increased by 12.58% from 2021.

**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	414,360,852	93,572,100	7,342,139		515,275,091
Credit payment card	90,007,846	3,149,643	5,674	17,003,820	110,166,983
<b>Total</b>	<b>504,368,698</b>	<b>96,721,743</b>	<b>7,347,813</b>	<b>17,003,820</b>	<b>625,442,074</b>
<b>Value of transactions</b>					
Debit payment card	73,181,413,938	86,342,931,272	23,858,993,292		183,383,338,502
Credit payment card	23,112,451,469	3,000,192,240	8,681,993	737,163,662	26,858,489,364
<b>Total</b>	<b>96,293,865,407</b>	<b>89,343,123,512</b>	<b>23,867,675,285</b>	<b>737,163,662</b>	<b>210,241,827,866</b>
<b>Average value of transaction</b>					
Debit payment card	177	923	3,250		356
Credit payment card	257	953	1,530	43	244
<b>Total</b>	<b>191</b>	<b>924</b>	<b>3,248</b>	<b>43</b>	<b>336</b>

Note: Data refer to the total number and value of national card-based payment transactions in HRK in 2022.  
Source: CNB.

Of all national card-based payment transactions, 515.27 million transactions, or 82%, were executed using debit cards, with a total value of HRK 183,383.34 million or 87% (Table 8). In 2022, the total number of national payment transactions executed using debit cards increased by 13.7% and the value of transactions increased by 13.73% from 2021.

Of all national card-based payment transactions, 110.16 million transactions, or 18%, were executed using credit cards, with a total value of HRK 26,858.49 million or 13% (Table 8). Although the share of the number and value of national card-based payment transactions decreased relative to the share of the number and value of national transactions executed using debit cards, the total number of national payment transactions executed using credit cards in 2022 increased by 1.51% and the value of transactions increased by 5.36% from 2021.

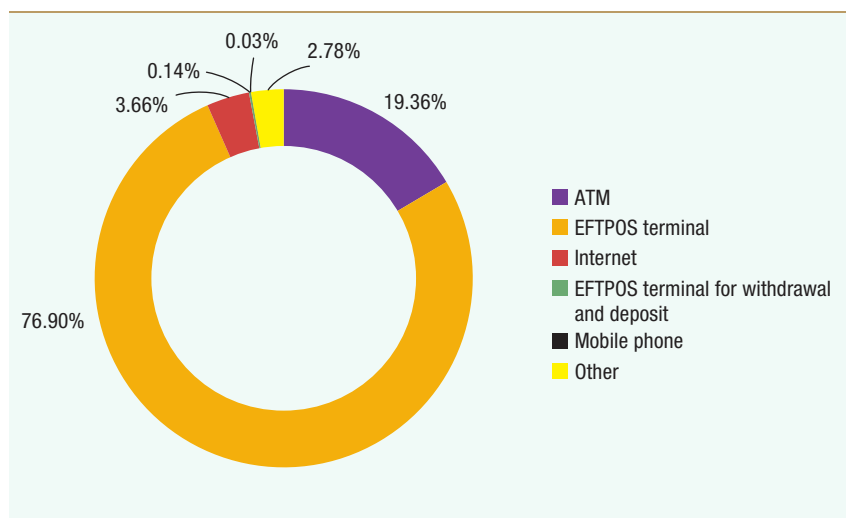
### National card-based payment transactions by accepting devices for payment cards

Of the total number of national card-based payment transactions in 2022, broken down by accepting devices for payment cards, the following were executed:

- **through ATMs:** 103.19 million card-based payment transactions with a total value of HRK 110,977.16 million;

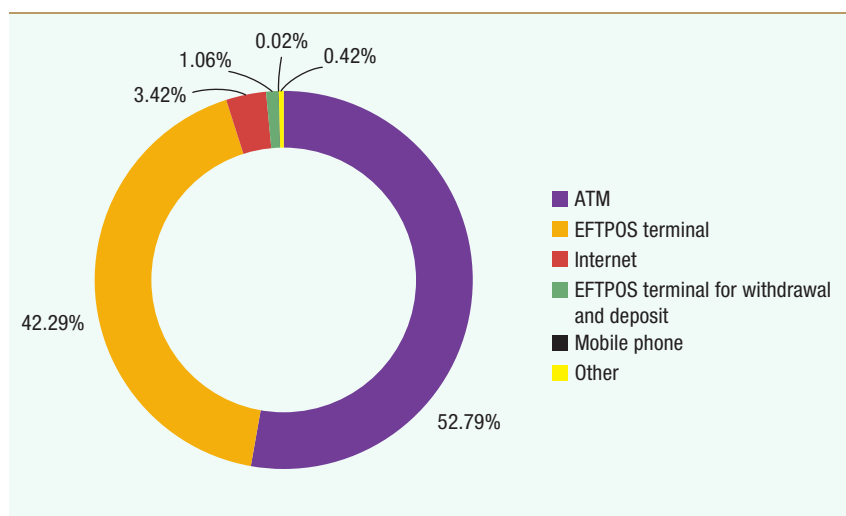
- **through EFTPOS terminals:** 480.94 million card-based payment transactions with a total value of HRK 88,916.07 million;
- **through the Internet:** 22.86 million card-based payment transactions with a total value of HRK 7,200.58 million;
- **through EFTPOS terminals for withdrawal and deposit:** 0.905 million card-based payment transactions with a total value of HRK 2,218.17 million;
- **by mobile telephone:** 0.16 million card-based payment transactions with a total value of HRK 50.84 million; and
- **other:** covering 17.37 million direct debit, fee and interest transactions, with a total value of HRK 878.99 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 2022.  
Source: CNB.

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

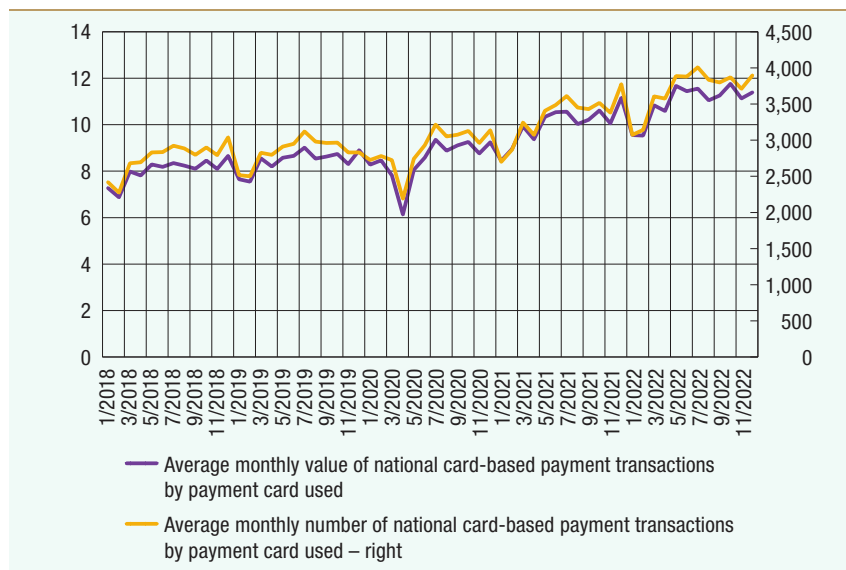


Note: Data refer to the total value of national card-based payment transactions in 2022.  
Source: CNB.

It is evident from the data shown that 76.9% of national card-based payment transactions were executed through EFTPOS terminals, and 19.36% through ATMs (Figure 9). The value of transactions shows a different ratio: in terms of the total value of national card-based payment transactions, ATM transactions accounted for 52.79% and EFTPOS terminals 42.29% (Figure 10).

In the RC, on average 10.98 national card-based payment transactions were executed monthly per payment card used, with a total value of HRK 3,628.84 (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, 504.37 million national card-based payment transactions of the purchases of goods and services, with a total value of HRK 96,293.86 million, were executed in 2022. Of this number, 414.36 million national card-based payment transactions (82%) were executed using debit cards, with a total value of HRK 73,181.43 million or 76%. The remaining 90.01 million (18%) national card-based payment transactions of purchases of goods and services, with a total value of HRK 23,112.45 million (24%), were made using credit cards.

In 2022, the total number of national card-based payment transactions of the purchases of goods and services increased by 13.8%, and the total value increased by 18.53% from 2021.

In 2022, the average value of a national card-based payment transaction of the purchase of goods or services stood at HRK 191. 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 177 and in which a credit card was used stood at HRK 257 (Table 8).

Of the above 504.37 million national card-based payment transactions, 484.17 million transactions were executed using consumer payment cards, with a total value of HRK 85,858.82 million. Accordingly, 96% of the number and 89% of the value of national card-based payment transactions of the purchases of goods and services were executed using consumer payment cards. The remaining 4% in number and 11% in value of transactions related to transactions executed using payment cards of business entities.

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 177, while the average for a similar transaction in which a payment card of a business entity (non-consumer) was used was HRK 516.

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
- **function of payment in instalments** – 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	410,372,489	70,434,811,162	172
Charge function	53,939,889	11,799,040,509	219
Function of repayment in instalments	6,972,428	7,719,315,779	1,107
Delayed debit function	20,849,285	3,946,817,333	189
Revolving function	10,769,186	1,894,084,834	176
Credit function	1,465,421	499,795,790	341
<b>Total</b>	<b>504,368,698</b>	<b>96,293,865,407</b>	<b>191</b>

Note: Data refer to the total number and value of national card-based payment transactions of purchases of goods and services in 2022.  
Source: CNB.

Of all national card-based payment transactions of the purchases of goods and services, 81% were executed using the debit function. The value of transactions executed by the debit function accounted for 73% 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 1,107 was recorded for card-based payment transactions using the instalment payment function (Table 9).

## Cash withdrawals

‘Cash withdrawals’ covers payment transactions of cash withdrawals 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, 96.72 million national card-based payment transactions of cash withdrawals, worth a total of HRK 89,343.12 million, were executed in 2022. Debit cards accounted for 93.57 million (96.74%) executed

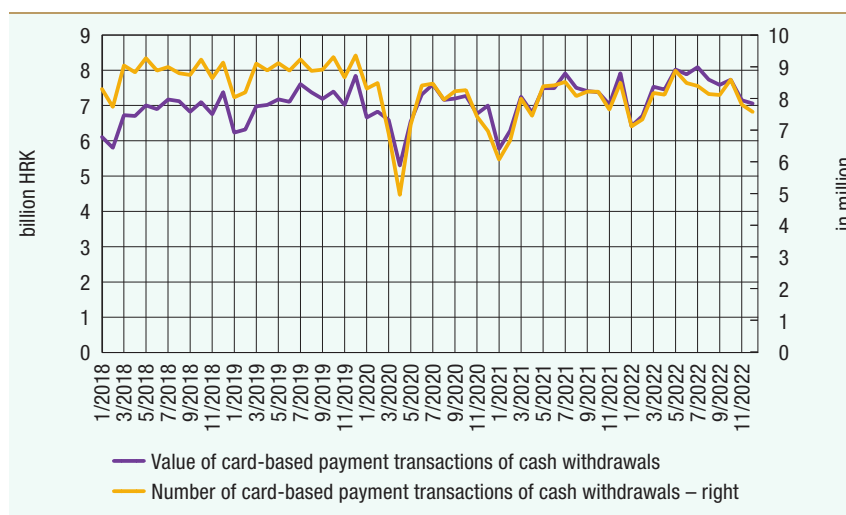
national card-based payment transactions of cash withdrawals, with a total value of HRK 86,342.93 million (96.64%; Table 8). Credit cards accounted for 3.15 million (3.26%) executed national card-based payment transactions of cash withdrawals, with a total value of HRK 3,000.19 million (3.36%; Table 8).

In 2022, the total number of national card-based payment transactions of cash withdrawals increased by 3.07%, and their value by 4.02% from 2021.

Of the total number of national card-based payment transactions, 93.39 million (96.6%) cash withdrawal transactions using consumer payment cards and 3.32 million (3.43%) using business entity (non-consumer) payment cards were executed.

Of the total value of national card-based payment transactions of cash withdrawals, HRK 82,681.65m (92.5%) were executed using consumer payment cards, and HRK 6,661.47m (7.46%) using business entity (non-consumer) payment cards.

**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 2022, the average value of a national card-based payment transaction of cash withdrawal stood at HRK 924 (with the use of a debit card the average value stood at HRK 923, while that with the use of a credit card was HRK 954).

The average value of a national card-based transaction of cash withdrawal in which a consumer payment card was used stood at HRK 885, and the corresponding value in which a payment card of a business entity (non-consumer) was used was HRK 2,005.



**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	93,230,831	86,010,805,885	923
Charge function	1,054,206	1,092,189,741	1,036
Function of repayment in instalments	343,721	333,751,977	971
Delayed debit function	837,868	960,737,944	1,147
Revolving function	904,042	535,615,351	592
Credit function	351,075	410,022,614	1,168
<b>Total</b>	<b>96,721,743</b>	<b>89,343,123,512</b>	<b>924</b>

Note: Data refer to the total number and value of national card-based payment transactions of cash withdrawals in 2022.

Source: CNB.

Of the total number of national card-based payment transactions of cash withdrawals, 96.4% were executed using the debit function. The value of transactions executed using the debit function accounted for 96.3% of the total value of national card-based payment transactions of cash withdrawals. 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 1,168 was recorded for card-based payment transactions using the credit function (Table 10).

## Cash deposits

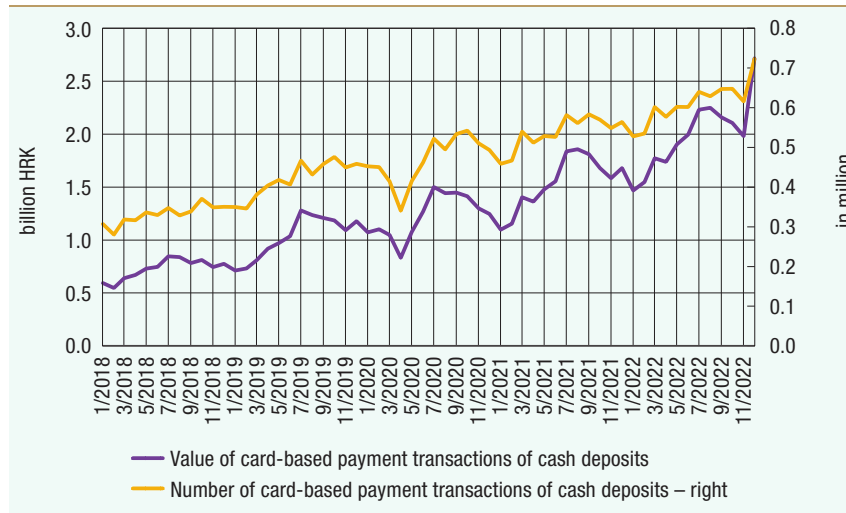
‘Cash deposits’ covers payment transactions of the deposits of funds to the account for payment using the issuer’s payment card through ATMs, EFTPOS terminals for withdrawal and deposit and other methods (channels), but it does not include the payment transactions of cash deposits into a day/night deposit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

In all, 7.35 million national card-based cash deposit payment transactions, worth a total of HRK 23,867.67 million, were executed in 2022.

Of the total of 7.35 million national card-based payment transactions, 5.29 million (72%) cash deposit transactions were executed using consumer payment cards, with a total value of HRK 12,379.25 million, or 52% of the value of all such transactions, while 2.05 million (28%) transactions, with a total value of HRK 11,488.42 million, or 48%, were executed using the payment cards of business entities (non-consumers).

In 2022, the total number of national card-based payment transactions of cash deposits increased by 14.10%, and their value by 28.99% from 2021. The above data show that cardholders used an ATM as the channel for cash deposits to their payment accounts in 2022 more frequently than in 2021 (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 2022, the average value of a national card-based payment transaction of a cash deposit stood at HRK 3,248. The average value of a national card-based payment transaction of a cash deposit in which a debit card was used stood at HRK 3,250.

The average value of a national card-based payment transaction of a cash deposit using a consumer payment card stood at HRK 2,335, while that in which a payment card of a business entity (non-consumer) was used was HRK 5,610.

## 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.

A total of 17.00 million transactions of contractual debits, worth a total of HRK 737.16 million, were executed in 2022. The largest number of transactions, 15.27 million (90%) of them, with a total value of HRK 503.99 million (68.37%), were fee, membership fee, interest and similar

transactions, which cardholders paid through payment cards to the issuers. The remaining 1.73 million transactions (10%) are payment transactions of direct debits executed through payment cards, with a total value of HRK 233.17 million (31.63%).

In 2022, the average value of a contractual debit transaction stood at HRK 43. The average value of interest, fee, membership fee and similar transactions, which cardholders paid through payment cards, stood at HRK 33, while the average value of payment transactions of direct debits executed through payment cards stood at HRK 135.

### 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 63,573 national card-based payment transactions of unauthorised use in 2022, worth a total of HRK 26,471,528. In 2022, the average value of a national card-based payment transaction in which unauthorised use was established came to HRK 416.

It was established that of all national card-based payment transactions, 61,155 (96%) transactions of unauthorised uses related to consumer payment cards, worth a total of HRK 24,105,933, or 91% and 2,418 or 3.8% transactions, with a total value of HRK 2,365,595, or 9% related to 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).

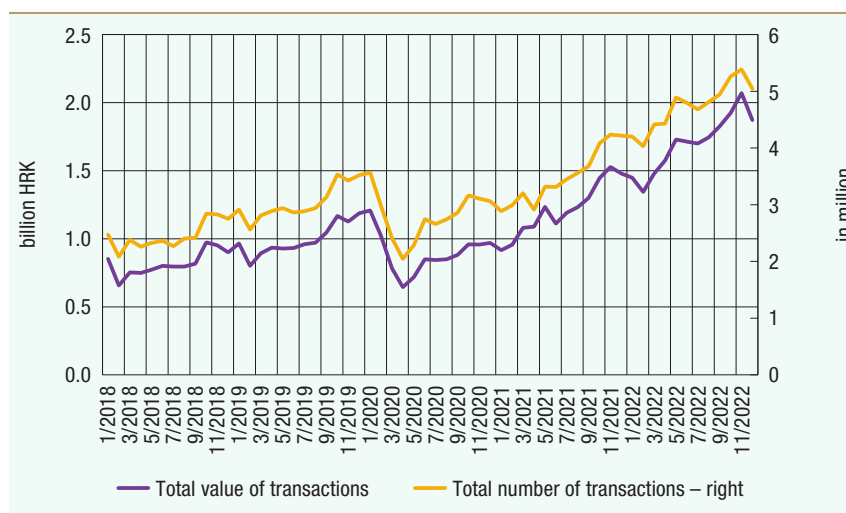
Data on international card-based payment transactions are shown in kuna; the original currency of the card-based payment transaction is

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 56.89 million international card-based payment transactions, worth a total of HRK 20,423.62 million, were executed in 2022. The average value of an international card-based payment transaction stood at HRK 359.

The average monthly number of international card-based payment transactions stood at 4.74 million, and the average monthly value of transactions at HRK 1,701.97 million. In 2022, the total number of international card-based payment transactions increased by 36% from 2021, while their total value increased by 40% 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.

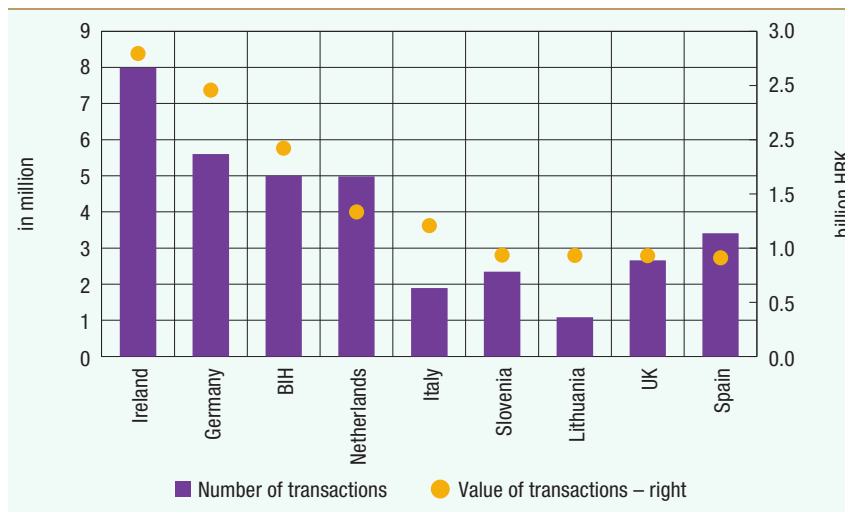
Of the total number and value of international card-based payment transactions, 95.77% of the number and 88.45% of the value of international card-based payment transactions were executed with the use of consumer cards, while 4.23% of the number and 11.55% of the value of international card-based payment transactions were executed with the use of the cards of business entities (non-consumers).

International card-based payment transactions were executed in 138 currencies and 216 countries.

From the received data on international card-based payment transactions broken down by countries it is evident that in the nine most represented countries (Ireland, Germany, Bosnia and Herzegovina,

the Netherlands, Italy, Slovenia, Lithuania, the United Kingdom and Spain) the total value of card-based payment transactions stood at HRK 13,423.01 million, accounting for 66% 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 2022.

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

Source: CNB.

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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’) 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.

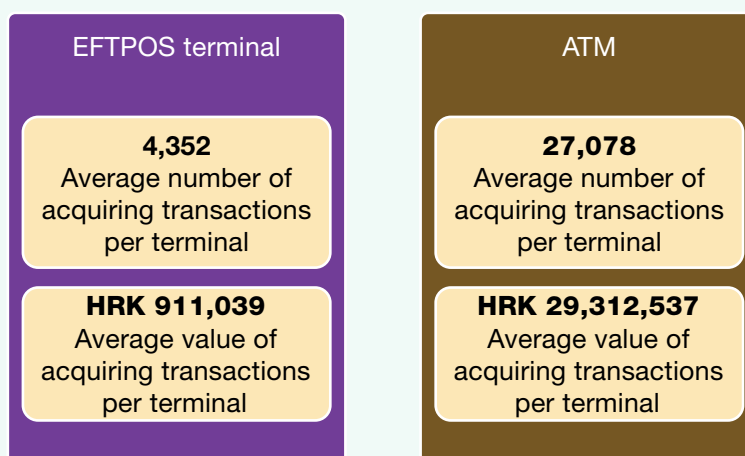
The chapter is divided into four parts:

- 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 2022



Source: CNB.

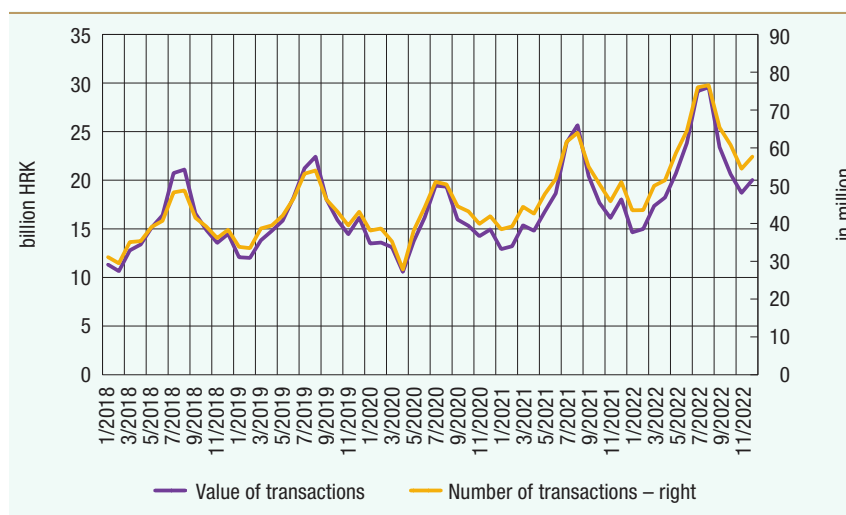
## 5.1 Total acquiring of payment transactions executed using payment cards

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

In all, 702.32 million acquiring transactions, with a total value of HRK 251,289.23 million, were executed in 2022 (Figure 16). In 2022, the total number of acquiring transactions increased by 18.6%, and their value increased by 17.7% from 2021.

The data shown in Figure 16 also suggest an upward trend in the total number and value of monthly transactions of acquiring payment cards in particular 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, in 2020, the figures for the number and value of monthly transactions 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.

acquiring payment cards were somewhat smaller than the average due to the impact of the pandemic. Market recovery as well as the increase in the number (15%) and the value (9%) of acquiring transactions were noticeable in 2021 when compared to the record year 2019. The trend of recovery continued in 2022, when both the number and the value of acquiring transactions increased by about 18% from 2021. As in every year, the largest number of acquiring transactions was recorded in August 2022 with a total of 76.57 million transactions and a total value of HRK 29,559.97 million.

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.

## Business entities

On 31 December 2022, there were 28,565 contractual merchants (business entities), of which 5,370 (20%) also offered the possibility of payment by payment cards through the Internet at their point of sale.



The above data on 5,370 points of sale that on 31 December 2022 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 18.9%.

Of the total number of contractual merchants (28,565), 23,182 (81.16%) offer the possibility of payment by payment cards only through physical EFTPOS terminals. Furthermore, 1,887 (12.24%) contractual merchants 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 one contractual merchant, regardless of the number of points of sale and accepting devices for payment cards that are used.

Of the total of the above 28,565 contractual merchants, 19,066 or 67% of them have the service of acquiring contracted with only one payment service provider – acquirer, 5,560 (19%) of them have the service of acquiring contracted with two acquirers, and 2,958 (10%) with three acquirers.

### **Private persons (consumers)**

On 31 December 2022, a total of 4,481 contractual merchants – natural persons were recorded, of which 1,316 (29.4%) had the service of acquiring through the Internet contracted. In all, 3,930 (87.70%) of them have the service of acquiring contracted with only one payment service provider – acquirer and 551 (12.30%) have the service of acquiring contracted with two service providers – acquirers.

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).

Of the total number of acquiring transactions, 16.13% of transactions were acquired through ATMs, 77.88% through EFTPOS terminals, 5.72% through the Internet, 0.16% through EFTPOS terminals for withdrawal and deposit and 0.11% were other transactions.

Of the total value of acquiring transactions, 48.81% of transactions were acquired through ATMs, 45.56% through EFTPOS terminals, 4.49% through the Internet, 1.02% through EFTPOS terminals for withdrawal and deposit and 0.12% were other transactions.

**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	112,547,773	286,366,446	2,634,704	1,128,642		402,677,565
Electronic money institutions and payment institutions	746,422	260,576,813	37,506,706	19,461	792,280	299,641,682
<b>Total</b>	<b>113,294,195</b>	<b>546,943,259</b>	<b>40,141,410</b>	<b>1,148,103</b>	<b>792,280</b>	<b>702,319,247</b>
<b>Value of transactions, in HRK</b>						
Credit institutions	121,806,636,546	55,239,758,898	1,740,855,023	2,531,958,906		181,319,209,373
Electronic money institutions and payment institutions	837,017,300	59,256,934,272	9,530,647,329	35,875,199	309,547,442	69,970,021,542
<b>Total</b>	<b>122,643,653,846</b>	<b>114,496,693,170</b>	<b>11,271,502,352</b>	<b>2,567,834,105</b>	<b>309,547,442</b>	<b>251,289,230,915</b>

Note: Data refer to the total number and value of acquiring transactions in HRK in 2022.

Source: CNB.

In all, 113.29 million transactions, with a total value of HRK 122,643.65 million, were acquired through ATMs in 2022. Credit institutions participated in the acquiring of payment transactions executed using payment cards primarily for the purpose of cash withdrawals through ATMs with a share of 99% in the number and value of transactions.

In all, 546.94 million transactions, worth a total of HRK 114,496.69 million, were acquired through EFTPOS terminals in 2022. Electronic money institutions and payment institutions accounted for 51.75% of the share in the number of transactions and 48.25% in the value of transactions of the total acquiring of payment transactions executed using payment cards through EFTPOS terminals.

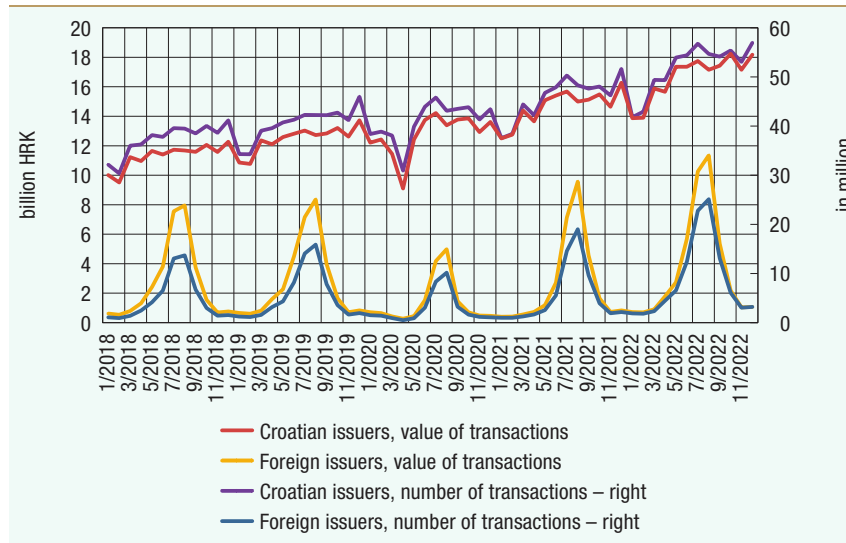
The total number of transactions of the acquiring of payment transactions executed using payment cards through the Internet in 2022 stood at 40.14 million with a total value of HRK 11,271.50 million.

The average value of an acquiring transaction stood at HRK 360 in 2022:

- **through EFTPOS terminals:** HRK 209
- **through the Internet:** HRK 280
- **through ATMs:** HRK 1,082
- **through EFTPOS terminals for withdrawal and deposit:** HRK 2,236; and
- **through other means:** HRK 390.

Of the total of 702.31 million acquiring transactions executed in 2022, 85% refer to payment cards of Croatian issuers, and 15% to those of foreign issuers. In 2022, of the total HRK 251,289.23 million's worth of acquiring transactions executed, 83% refers to payment cards

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



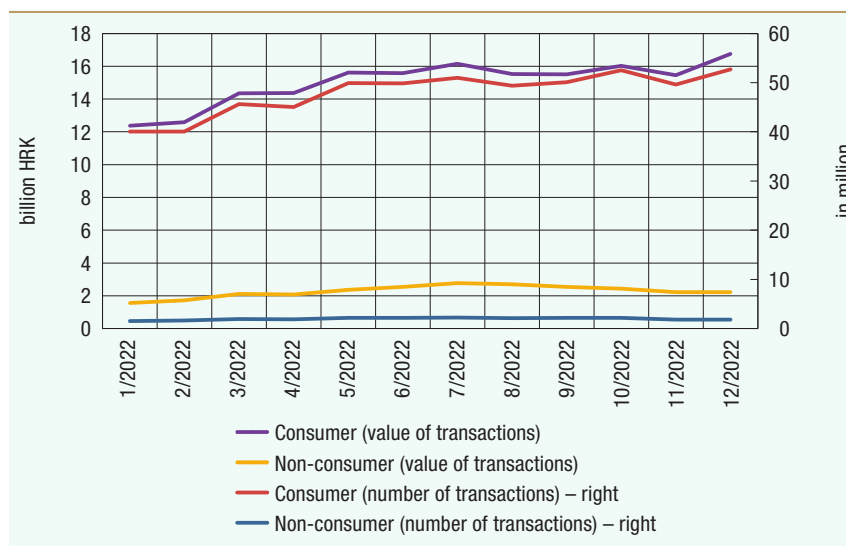
Note: Data refer to the total number and value of transactions of acquiring.  
Source: CNB.

of Croatian issuers, and 17% to payment cards of foreign issuers (Figure 17).

In 2022, the total number of acquiring transactions of foreign issuers increased by 60%, and their value increased by 43.7% from 2021.

In 2022, the total number of acquiring transactions of Croatian issuers increased by 13.6%, and their value increased by 13.4% from 2021.

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

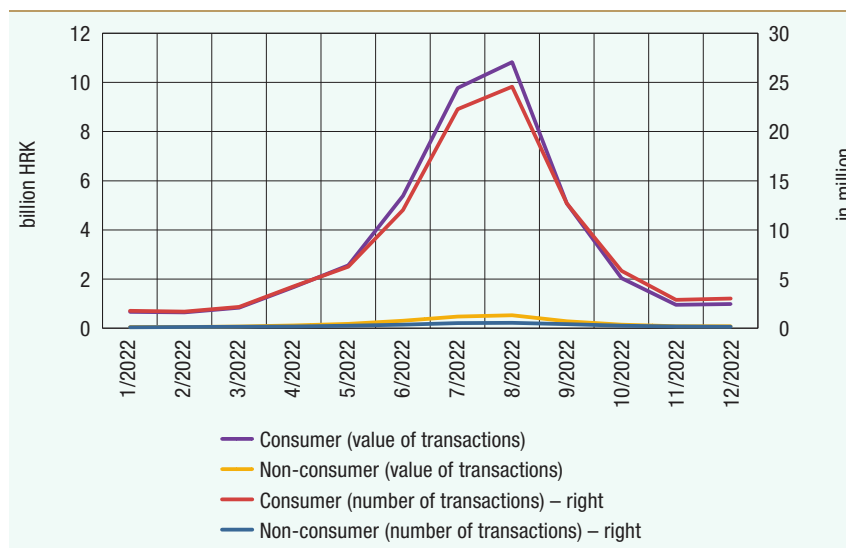


Note: Data refer to the total number and value of transactions of the acquiring of payment transactions executed using Croatian issuers' payment cards.  
Source: CNB.

In 2022, there were 599.57 million transactions of the acquiring of payment transactions executed using payment cards of Croatian issuers, worth a total of HRK 207,535.66 million, of which the following were acquired (Figure 18):

- **payment cards of consumers:** 575.55 million transactions, worth a total of HRK 180,266.42 million; and

**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.

- **payment cards of non-consumers (business entities):** 23.76 million transactions, worth a total of HRK 27,269.24 million.

In 2022, in all 102.74 million transactions of the acquiring of payment transactions executed using payment cards of foreign issuers were executed, worth a total of HRK 43,753.57 million, of which the following were acquired (Figure 19):

- **payment cards of consumers:** 99.49 million transactions, worth a total of HRK 41,398.93 million; and
- **payment cards of non-consumers (business entities):** 3.25 million transactions, worth a total of HRK 2,354.64 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 82%, cash withdrawals accounted for 16% and cash deposits for 2%. In terms of value, a somewhat inverse ratio is seen: of the total value of acquiring transactions, purchases of goods and services accounted for 45%, cash withdrawals accounted for 44% and cash deposits for 11%.

The term 'purchases of goods and services' includes 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, 587.11 million acquiring transactions for the purchases of goods and services, worth a total of HRK 125,462.93 million (own cards, cards of other Croatian issuers and cards of foreign issuers) were executed in 2022. In 2022, the total number of acquiring transactions for purchases of goods and services increased by 21%, and their value by 27% from 2021.

'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 2022, the total number of acquiring transactions of cash withdrawal came to 107.28 million, with a total value of HRK 102,171.89 million, an increase of 4.7% in the number of transactions and 5.6% in the value of transactions from 2021.

'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 2022, the total number of acquiring transactions of cash deposits came to 7.05 million, with a total value of HRK 22,983.31 million, an increase of 13% in the number of transactions and 27.8% in the value of transactions from 2021.

### **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

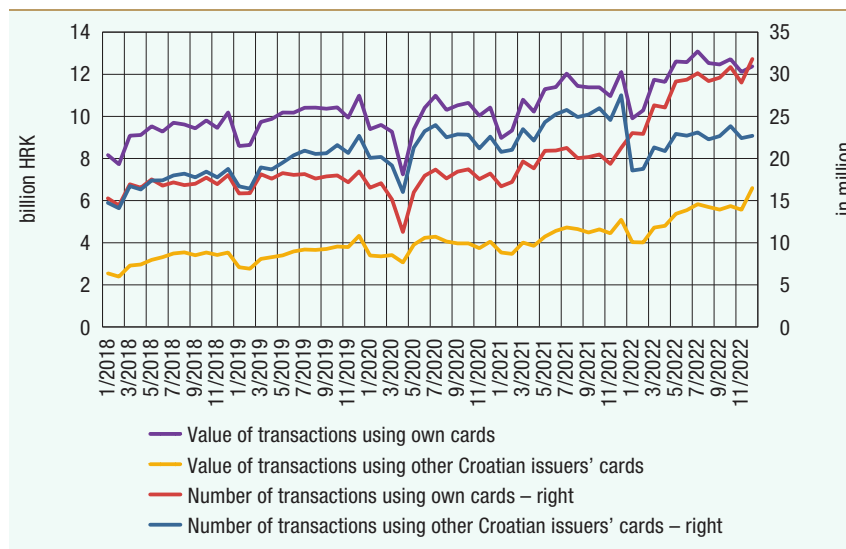
executed using payment cards the acquirer itself has issued (hereinafter referred to as ‘own cards’) and the acquiring of payment transactions executed using payment cards of other Croatian issuers (hereinafter referred to as ‘other Croatian issuers’).

In 2022, a total of 599.57 million transactions of acquiring payment cards of Croatian issuers were executed, worth a total of HRK 207,535.66 million, of which the following were acquired (Figure 20):

- **own cards:** 337.41 million transactions, worth a total of HRK 144,048.73 million; and
- **cards of other Croatian issuers:** 262.16 million transactions, worth a total of HRK 63,486.92 million.

In 2022, the total number of acquirings of payment transactions executed using payment cards of Croatian issuers increased by 14%, and the total value increased by 13% from 2021.

**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.

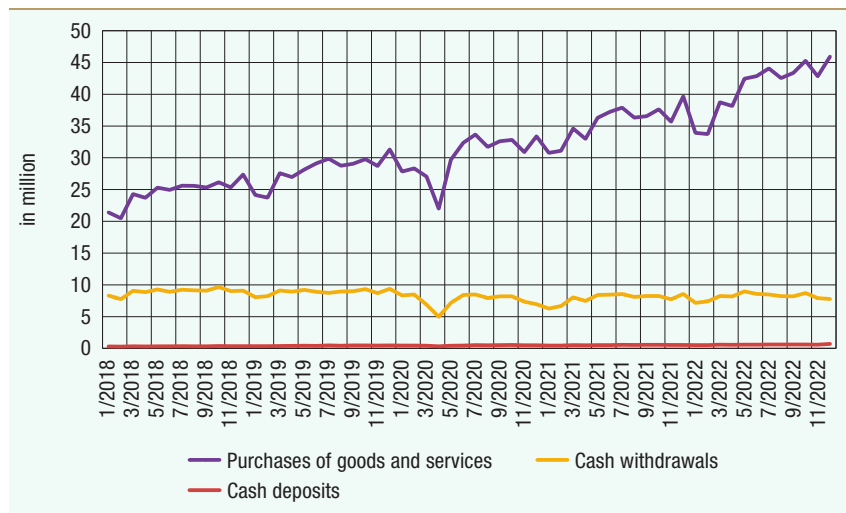
Figure 20 shows the total number and value of transactions of the acquiring of payment transactions executed using payment cards issued in the RC by the issuer at a monthly level in 2018, 2019, 2021 and 2022. It is evident that acquirers most frequently acquired payment transactions executed using own 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, 17.32% of transactions were acquired through ATMs, 76.19% through EFTPOS terminals, 6.18% through the Internet and 0.30% through other means. If total values of transactions of the acquiring of Croatian issuers’

payment cards are observed, 60.77% of transactions were acquired through ATMs, 46.18% through EFTPOS terminals, 4.95% through the Internet and 1.42% through other means.

In 2022, the average value of a transaction of the acquiring of payment transactions executed using Croatian issuers' payment cards stood at:

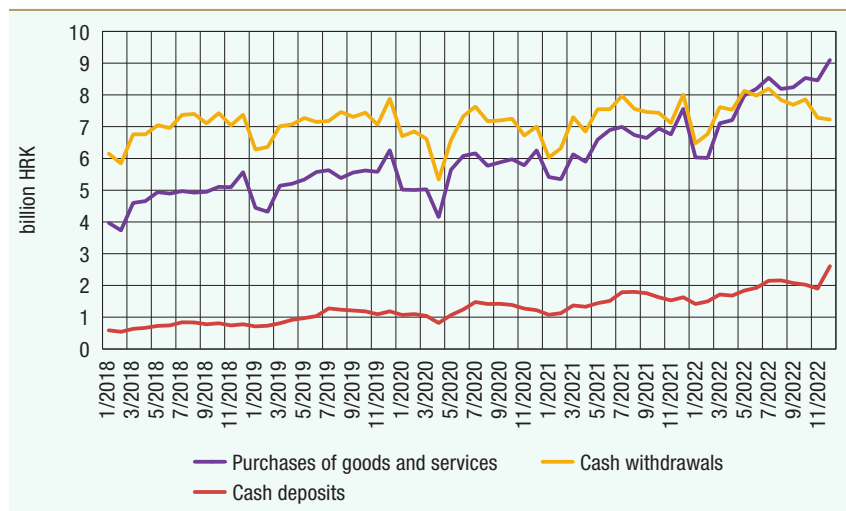
- through EFTPOS terminals: HRK 185;
- through the Internet: HRK 244;
- through ATMs: HRK 1,071; and
- through EFTPOS terminals for withdrawal and deposit: HRK 2,301.

**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.

In 2022, the average number of transactions of the acquiring of payment transactions executed using Croatian issuers' payment cards stood at 49.96 million a month, and the average value of transactions was HRK 17,294.64 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 for 44% and the purchases of goods and services accounting for 45% in the total value of acquiring transactions. Cash deposits account for 11% in the total value of acquiring transactions (Figures 21 and 22).

## Purchases of goods and services

The term 'purchases of goods and services' includes 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 2022, in all, 493.83 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 93,587.98 million.

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:** 456.722 million transactions (92.5%) were acquired, with a total value of HRK 84,527.88 million (90.32%); and
- **through the Internet:** 37.06 million transactions (7.5%) were acquired, with a total value of HRK 9,059.81 million (9.68%).

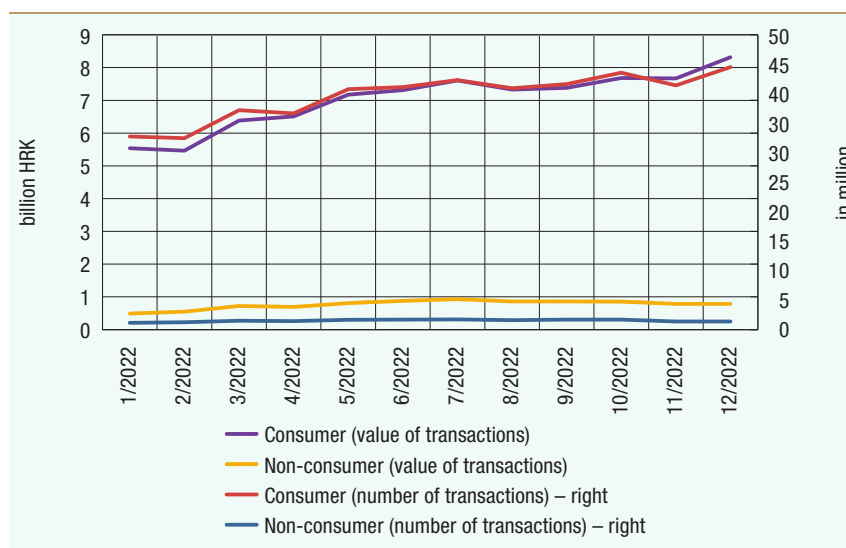
The average value of transactions of the acquiring of payment transactions for the purchases of goods and services, executed using payment cards of Croatian issuers in 2022 stood at:

- **through EFTPOS terminals:** HRK 185; and
- **through the Internet:** HRK 244.

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):



**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.

- **consumers:** 475.59 million transactions (96%) with a total value of HRK 84,372.47 million (90%) were acquired; and
- **non-consumers:** 18.23 million transactions (4%) with a total value of HRK 9,215.51 million (10%) were acquired.

## Cash withdrawals

'Cash withdrawals' covers transactions of the acquiring of payment 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, 97.82 million transactions of the acquiring of payment transactions of cash withdrawals, executed using payment cards of Croatian issuers, worth a total of HRK 90,593.27 million, were executed in 2022.

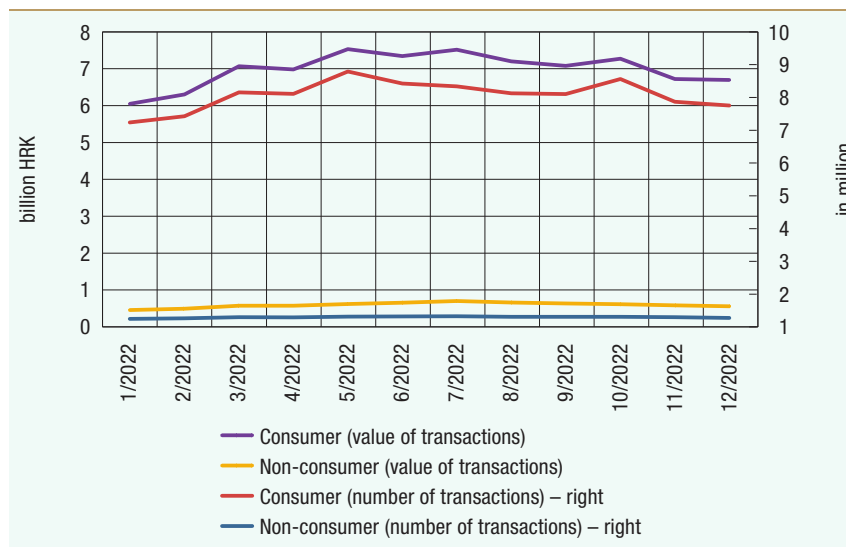
Of all the transactions of the acquiring of payment transactions of cash withdrawals, executed using payment cards issued in the RC:

- **through ATMs:** 97.03 million transactions (99.26%) with a total value of HRK 89,791.39 million (99.11%) were acquired;
- **through EFTPOS terminals for withdrawal and deposit:** 0.68 million transactions (0.7%) with a total value of HRK 743.14 million (0.82%) were acquired;
- **through EFTPOS terminals:** 12,174 transactions (0.01%) with a total value of HRK 5.56 million (0.01%) were acquired; and
- **through other means:** 22,339 transactions (0.02%) with a total value of HRK 53.18 million (0.06%) were acquired.

The average value of transactions of the acquiring of payment transactions of cash withdrawals executed using payment cards issued in the RC in 2022 stood at:

- **through ATMs:** HRK 925;
- **through EFTPOS terminals for withdrawal and deposit:** HRK 1,083;
- **through EFTPOS terminals:** HRK 457; and
- **other:** HRK 2,381.

**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 of (Figure 24):

- **consumers:** 94.29 million transactions (96%) with a total value of HRK 83,781.84 million (93%) were acquired; and
- **non-consumers:** 3.52 million transactions (4%) with a total value of HRK 6,811.44 million (7%) were acquired.

## Cash deposits

'Cash deposits' covers payment transactions of the acquiring of transactions for cash deposits executed through ATMs and EFTPOS terminals for withdrawal and deposit.

In all, 7.05 million transactions of the acquiring of payment transactions for cash deposits, executed using payment cards of Croatian issuers, worth a total of HRK 22,993.31 million, were recorded in 2022.

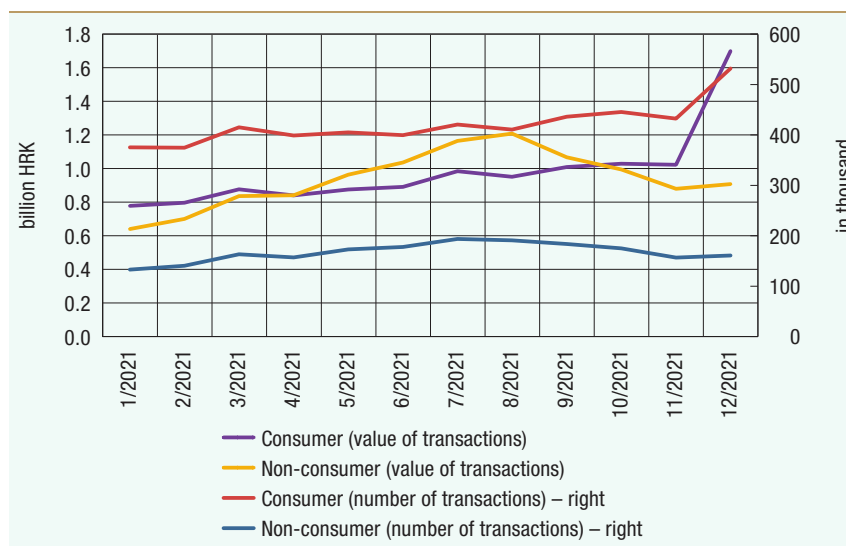
Of all the transactions of the acquiring of payment transactions for cash deposits executed using payment cards issued in the RC:

- **through ATMs:** 6.74 million transactions (95.64%) with a total value of HRK 21,451.26 million (93.29%) were acquired; and
- **through EFTPOS terminals for withdrawal and deposit:** 0.30 million transactions (4.36%) with a total value of HRK 1,542.05 million (6.71%) were acquired.

The average value of transactions of the acquiring of transactions for cash deposits in the RC in 2022 stood at:

- **through ATMs:** HRK 3,181; and
- **through EFTPOS terminals for withdrawal and deposit:** HRK 5,017.

**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 transactions for cash deposits, executed using payment cards of Croatian issuers (Figure 25):

- **consumers:** 5.05 million transactions (72%) with a total value of HRK 11,753.15 million (51%) were acquired; and
- **non-consumers:** 2 million transactions (28%) with a total value of HRK 11,240.16 million (49%) were acquired.

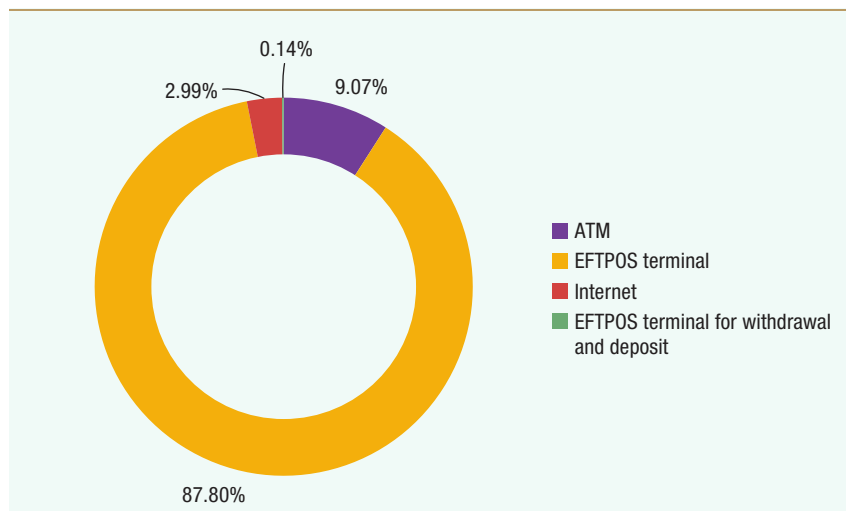
## 5.1.2 Acquiring of payment transactions executed using payment cards issued abroad

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 2022, in all, 102.74 million transactions of the acquiring of payment transactions with a total value of HRK 43,753.57 million were executed using payment cards of foreign issuers. Thus, the total number of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers increased by 60.11%, and their value increased by 43.72% in 2022 from 2021.

From an overview of the number and value of acquiring transactions it is evident that the holders of payment cards issued abroad most frequently purchased goods and services at EFTPOS terminals in the RC (Figures 26 and 27).

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



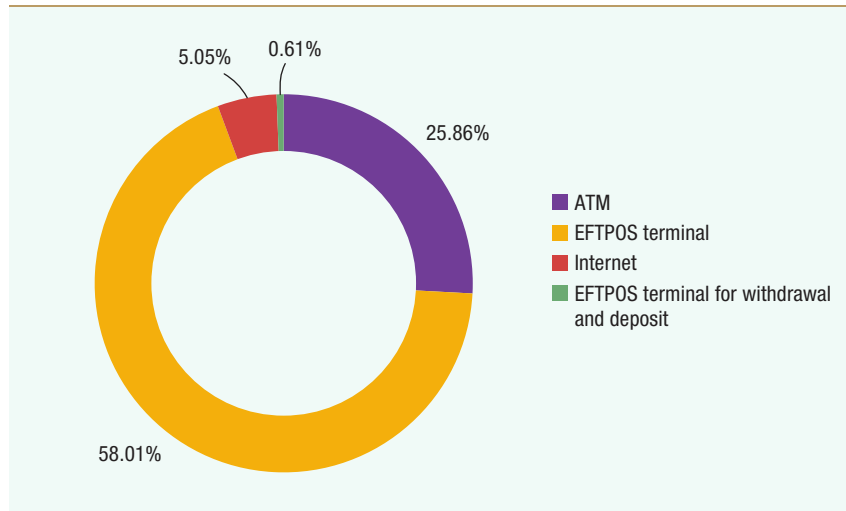
Note: Data refer to the total number of transactions of the acquiring of payment cards of foreign issuers in 2022.  
Source: CNB.

Of all the transactions of the acquiring of payment transactions executed using payment cards of foreign issuers in 2022:

- **through ATMs:** 9.32 million transactions with a total value of HRK 11,312.79 million were acquired;
- **through EFTPOS terminals:** 90.21 million transactions with a total value of HRK 29,963.25 million were acquired;
- **through the Internet:** 3.07 million transactions with a total value of HRK 2,211.69 million were acquired;

- **through EFTPOS terminals for withdrawal and deposit:** 0.1 million transactions with a total value of HRK 265.83 million were acquired.

**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 2022.

Source: CNB.

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

- **through EFTPOS terminals:** HRK 332;
- **through the Internet:** HRK 719;
- **through ATMs:** HRK 1,214; and
- **through EFTPOS terminals for withdrawal and deposit:** HRK 1,853.

In 2022, in all 93.28 million (91%) 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 32,174.95 million (74%), and 9.46 million (9%) transactions of the acquiring of payment transactions of cash withdrawals, with a total value of HRK 11,578.62 million (26%).

In 2022, acquiring transactions executed with the use of payment cards of foreign issuers from a total of 199 countries were recorded. The acquiring of payment cards issued in the six most represented countries (Germany, Austria, the United Kingdom, USA, Slovenia, Italy and the Netherlands), accounted for 56% of the total number of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers and for 61% of the total value of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers.

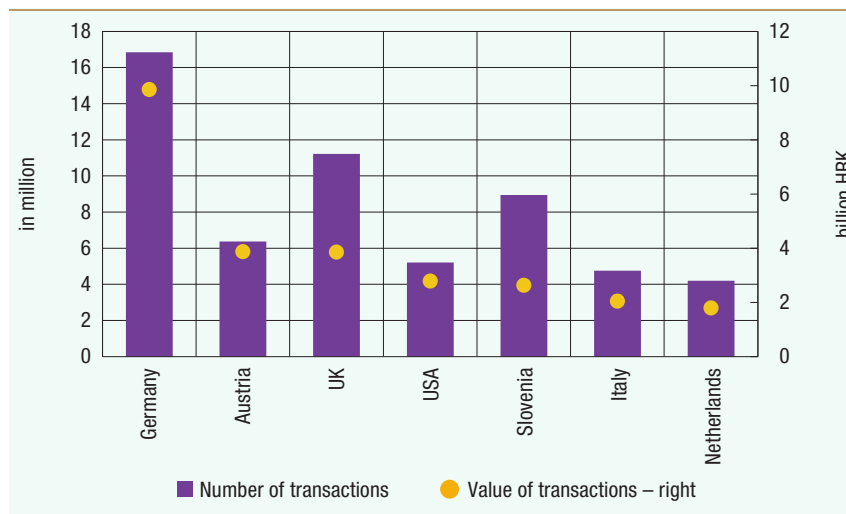
**Table 12** Number and value of transactions of the acquiring of payment cards of foreign issuers by accepting devices for payment cards and cardholders

User	Payment transaction	ATM	EFTPOS terminal	Internet	EFTPOS terminal for withdrawal and deposit	TOTAL	
Consumer	Number of transactions	Purchases of goods and services		87,264,541	2,898,642	90,163,183	
		Cash withdrawals	9,186,798			138,545	9,325,343
	Value of transactions	Purchases of goods and services		28,068,228,696	1,956,127,002		30,024,355,698
		Cash withdrawals	11,117,746,925			256,829,970	11,374,576,895
Non-consumer	Number of transactions	Purchases of goods and services		2,944,281	175,977	3,120,258	
		Cash withdrawals	129,634			4,895	134,529
	Value of transactions	Purchases of goods and services		1,895,024,896	255,570,382		2,150,595,278
		Cash withdrawals	195,049,097			8,997,538	204,046,635
Total number of transactions	Purchases of goods and services	0	90,208,822	3,074,619	0	93,283,441	
	Cash withdrawals	9,316,432	0	0	143,440	9,459,872	
	<b>Total</b>	<b>9,316,432</b>	<b>90,208,822</b>	<b>3,074,619</b>	<b>143,440</b>	<b>102,743,313</b>	
Total value of transactions	Purchases of goods and services	0	29,963,253,592	2,211,697,384	0	32,174,950,976	
	Cash withdrawals	11,312,796,022	0	0	265,827,508	11,578,623,530	
	<b>Total</b>	<b>11,312,796,022</b>	<b>29,963,253,592</b>	<b>2,211,697,384</b>	<b>265,827,508</b>	<b>43,753,574,506</b>	

Note: Data refer to the total number and value of transactions of the acquiring of payment cards of foreign issuers in 2022.  
Source: CNB.

In 2022, of the seven 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 9,859.57 million. In the seven countries the largest average value by card transaction in the amount of HRK 607 was generated with the use of Austrian issuers' cards, and the smallest with Slovenian 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 2,440.73 million invoices in 2022, with a total value of HRK 254,331.93 million.

Payment in cash is still the most frequent means of payment in the RC. According to the data of the Ministry of Finance of the RC – Tax Administration, of the total number of issued fiscalised invoices in the RC, invoices paid in cash accounted for 77.5% in 2020, 74.78% in 2021 and 72.49% in 2022. At the same time, in the observed period, the share of the number of invoices paid by payment cards increased gradually and amounted to 20.5% in 2020, 21.24% in 2021 and 23.18% in 2022. The number of invoices paid by other means on average accounted for 5.4% of the remaining share in the number of issued invoices.

Accordingly, it can be concluded that with regard to the ratio between card and cash payments in the past period, approximately every fourth fiscalised invoice was paid by card and the other three invoices by cash. However, fiscalisation system data indicate that the habits of consumers are developing towards a constant and accelerated growth in the number and value of cashless payments, i.e. that consumers more frequently choose the payment card as a means of payment of invoices and that the share of invoices paid by card could soon account for more than a third.

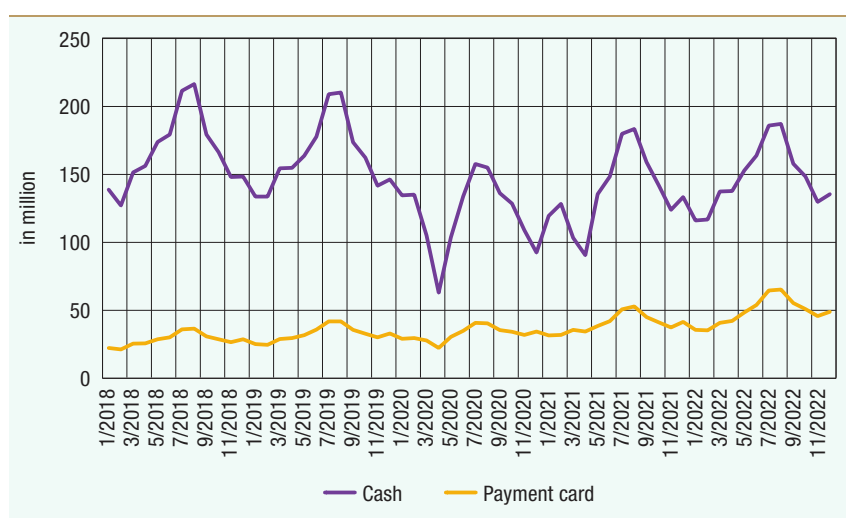
<sup>8</sup> According to the data of the Ministry of Finance of the RC – Tax Administration, collected based on the Cash Transaction Fiscalisation Act, Official Gazette 133/2012.

Furthermore, according to the data of the Ministry of Finance of the RC – Tax Administration, relative to the total value of issued fiscalised invoices, in 2020, 50.6% of the value of invoices was paid in cash, in 2021 it was 46.9% and in 2022, it was 45.3%. The share in the total value of invoices paid by cards stood at 43.6% in 2020, 45.6% in 2021 and 47.2% in 2022. The value of invoices paid by other means of payment on average accounted for 7.8% of the remaining share in the number of issued invoices.

The average value of a fiscalised invoice paid in cash in 2022 stood at HRK 65, and the average value of a fiscalised invoice paid by card stood at HRK 212. The average value of a fiscalised invoice paid in cash in 2021 stood at HRK 58, and the average value of a fiscalised invoice paid by card stood at HRK 199. The above data indicate that consumers choose the payment card more frequently than cash when paying invoices with larger amounts.

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 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 of transactions in 2022. In July and August 2022, as in 2021, the value of transactions paid by payment cards exceeded the value of fiscalised invoices paid in cash (Figure 30).

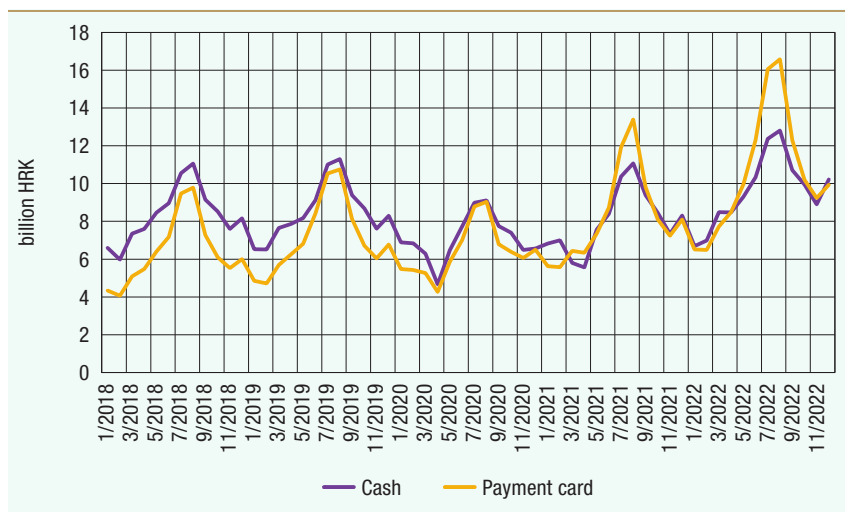
**Figure 29** Comparison of the use of different payment instruments – number



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.

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## 6 Glossary

- **‘Card-based payment instrument’** means each payment instrument, including a 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 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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