



Payment Cards and Card Transactions

Payment Statistics

2018

Year V · June 2019



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Overview of the cards market of the Republic of Croatia

Payment card issuers

25 credit institutions
2 electronic money institutions

Acquirers of payment cards at EFTPOS terminals

20 credit institutions
2 electronic money institutions
1 payment institution

Card schemes (in alphabetic order)

Four-party card schemes

- MasterCard®
- Visa®

Three-party card schemes

- American Express®
- Diners Club International®

Basic statistics of the Republic of Croatia

Population/business entities

Population: **4.124** million
Business entities (non-consumers): **0.264** million
Surface: **56,594** km²

Number of cardholders

Consumers: **3.353** million
Business entities (non-consumers): **0.221** million

Number of payment cards

Debit: **6.704** million
Credit: **1.853** million

National card payments (issuers in the RC)

Number: **438.34** million
Value: HRK **150,488.54** million

Infrastructure

EFTPOS terminals: **114,360**
ATMs: **5,148**

Payment instruments (purchase of goods and services – fiscalisation)

Number:
85% cash
14% payment card
1% other

Value:
54% cash
42% payment card
4% other

1 Introduction

The payment cards market is one of the most complex and diverse financial markets in the world. In the era of globalisation, a clear and transparent legal framework for payment services has been introduced in the payments market throughout the European Economic Area (hereinafter referred to as 'EEA'). One of the payment services that has been particularly regulated is the service of issuing of payment cards and the acquiring of payment transactions. The card-based payment transaction is a complex process, which includes many interconnected participants: payment service providers, institutions and systems. It is not possible to analyse only one component without considering its effect on each of the remaining links in the card transaction chain. Globally, card transactions demonstrate the development of several trends, such as an increase in standardisation, the separation between the "scheme" management (the rules of the system) and the services of transaction processing, enhanced oversight and rules in the legislative part and an intensified promotion and growth in the offer of services by all participants in card transactions. The innovation in the offer of card-based payment transactions that is the most important for users is the introduction of contactless technology both on the part of payment card issuers (contactless payment cards) and on the part of payment transaction acquirers (contactless EFTPOS terminals and/or ATMs). In the Republic of Croatia, the trend for the number of contactless payment cards and contactless-contact EFTPOS terminals to increase was recorded from January 2014, while the increase in the number of contactless-contact ATMs was observed from March 2017. On 31 December 2018, of the total number of payment cards in the RC, 26.8% of them were contactless. The share of contactless technology in payments infrastructure is significant because contactless-contact or only contactless EFTPOS terminals account for as much as 61% of the total number of EFTPOS terminals. The first contactless-contact ATMs were introduced in March 2017, when there were 111 of them. In just 22 months, their number increased by as much as 329%, so that on 31 December 2018, 476 contactless-contact ATMs were recorded, accounting for 9.2% of the total number of ATMs.

However, although a single legal framework exists in the EEA and the terminology in the world of payment cards is rather standardised, the comparison of card-based payment transactions between different countries is still difficult at times. The comparison is difficult not only because of the obvious difference between the individual countries and the structure of the market itself (the size of the market, the

number and the size of banks and the related legal framework and technological environment) but also because of consumer habits. The European Central Bank (hereinafter referred to as 'ECB') conducted a comprehensive study¹ in 2017 to analyse the use of cash, cards and other payment instruments used at points of sale (POS) by euro area consumers in 2016. The survey results show that in 2016, 79% of all transactions were carried out using cash at POS in the euro area, 19% of all transactions were settled using a payment card and 2% using other payment instruments, such as cheques, credit transfers or mobile payments. In terms of value, cash payments accounted for 54% of all POS transactions, cards for 39% and other means of payment (e.g. cheques) accounted for the remaining 7%.

The payment card is the most frequently used payment instrument in the RC, and the payment cards and card payments market has recorded constant growth and development. Over twelve years, the number of national card-based payment transactions increased by 115.2%, i.e. from the 203.68 million executed in 2006 to the 438.34 million executed in 2018. In addition, in the same period the value of national card-based payment transactions increased by 76%, i.e. from HRK 85,331.34 million to HRK 150,488.54 million.

With the increase in card payments and the rise of alternative payment methods, the future of cash is under discussion. According to statistical data, 84.50% of the transactions of fiscalised accounts in the RC refer to cash payments, while card-based payments account for 14.41%. Cash payments account for 54.32% and payments by payment cards account for 41.68% of the value of transactions of fiscalised accounts.

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 2018, with a comparison of the data with those for 2017, which should be equally useful to the users, payment service providers and the public in general.

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

¹ Esselink, H., and L. Hernández: *The use of cash by households in the euro area*, Occasional Paper Series, No 201, ECB, November 2017.

framework from which statistical data and basic methodological explanations have been collected.

The second chapter, under the title of 'Structure of the card 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).

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

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

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

The sixth chapter is a glossary.

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

1.2 Legal framework

The Republic of Croatia has completely aligned its legislation with the *acquis* in the area of payment operations. The PSA regulates payment services in the RC in the same way as they are regulated in the EU. Thus the services of payment card issuing and acquiring are among the defined payment services.

Statistical data on payment cards, card-based payment transactions and accepting devices for payment cards are collected according to the Decision on the obligation to submit data on the payment system and electronic money (Official Gazette 147/2013 and 16/2017; hereinafter referred to as 'Decision'), which entered into force on 1 January 2014. The Decision prescribes the obligation of reporting to the Croatian

National Bank (hereinafter referred to as 'CNB') on data with regard to the payment system and electronic money, as well as the content and manner of such reporting and reporting deadlines.

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

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

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

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

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

The publication gives an overview of payment cards and card-based payment transactions for 2018 with a comparison of the data with the data for 2017, 2016, 2015 and partially for 2014 through statistical data collected in three reports: Issuing of payment cards, Acquiring of payment cards and Infrastructure.

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)² 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 in the data of the Ministry of Finance of the Republic of Croatia – Tax Administration (Sub-chapter 5.2).

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

1. credit institutions (banks) that have obtained authorisation from the CNB, which includes authorisation to provide the payment services of the issuing of payment cards and the acquiring of transactions executed using payment cards;
2. electronic money institutions³ 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 2018, 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);

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

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

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

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

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

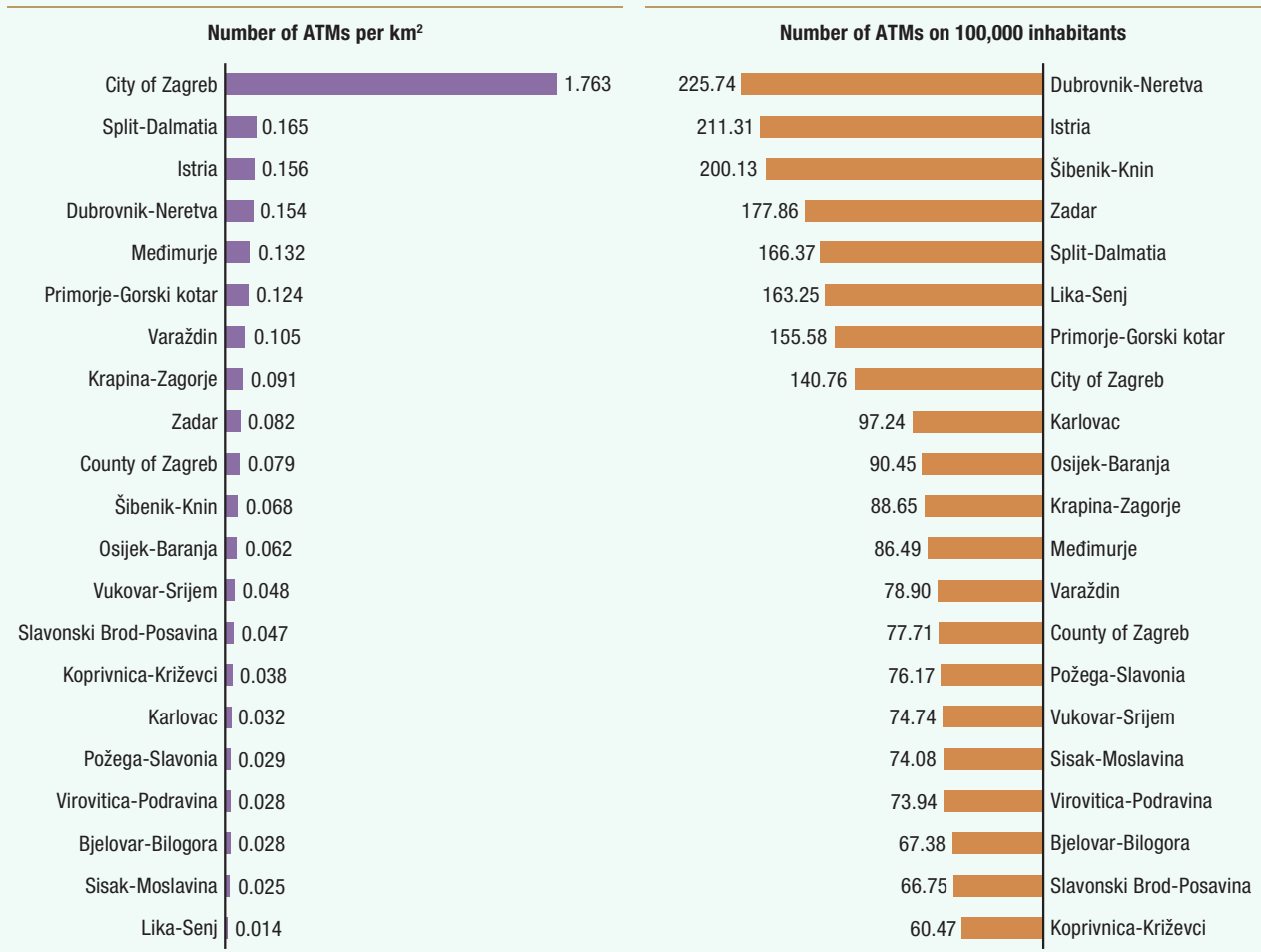
The basic terms defined by the PSA, which refer to the area of payment cards and card-based payment transactions, are the following:

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

2 Structure of the card 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 2018



ATMs and EFTPOS terminals in the RC

Total number of ATMs	5,148
Total number of EFTPOS terminals	114,360
Number of ATMs on 100,000 inhabitants	124.81
Number of EFTPOS terminals on 100,000 inhabitants	2,772.68
Number of ATMs per km ²	0.09
Number of EFTPOS terminals per km ²	2.02

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.

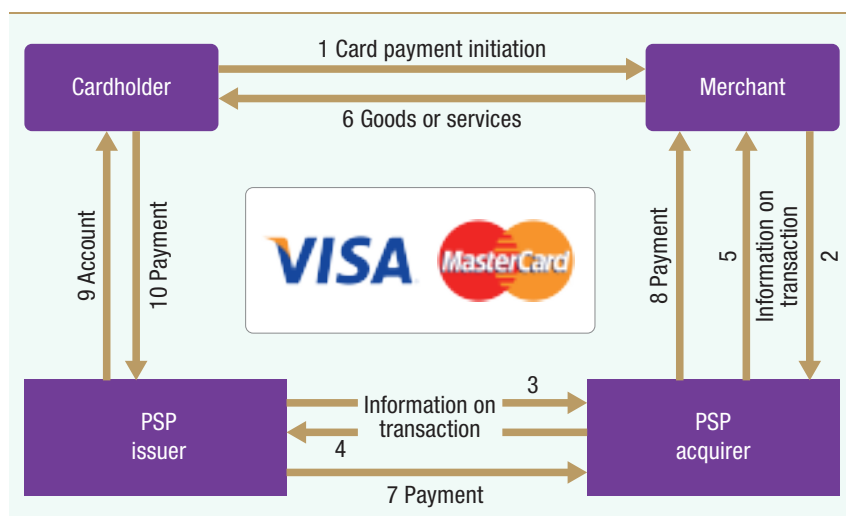
In the RC, two models of card schemes are recognised: the model with four stakeholders, i.e. the four-party card scheme and the model with three parties or stakeholders, i.e. the three-party card scheme.

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 between 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 and services.
2. The cardholder initiates a card-based payment transaction to the acquirer at an EFTPOS terminal, through the merchant, i.e. data are transmitted to the acquirer through the EFTPOS terminal.
3. The acquirer forwards the data on the transaction to the issuer for authorisation.
4. The issuer verifies and authorises the transaction and notifies the acquirer about it.
5. After receiving the authorisation from the issuer, the acquirer notifies the merchant about it through the EFTPOS terminal.
6. After the transaction has been authorised, the merchant delivers the goods and services to the cardholder.
7. The issuer forwards the amount to the acquirer for the purchase of goods and 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 are operational in the territory of the RC. Both debit and credit payment cards are issued in the four-party card scheme. In 2018, in all, 23 issuers/stakeholders of the four-party card scheme were recorded.

Three-party card scheme in the RC

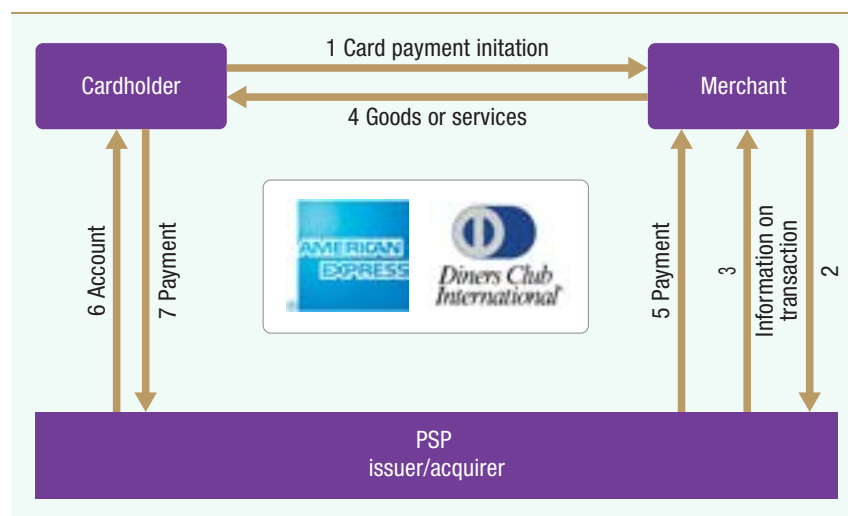
In the three-party card scheme in the RC the stakeholders are: the cardholder – payer, the merchant – payee, the payment service provider as the payment card issuer (hereinafter referred to as 'issuer'), which is at the same time the payment service provider as the acquirer of a payment transaction executed 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 the 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 issuer that is at the same time the acquirer at a physical point of sale (EFTPOS terminal) with the physical presence of the cardholder.

Source: CNB.

The course of execution of a card payment in a three-party card scheme between 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 and 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. A total of two payment service providers – stakeholders in the three-party scheme were recorded in 2018. Diners Club International® and American Express® are three-party card schemes in the RC.

2.2 Payments infrastructure

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

In the market of the RC, on 31 December 2018, there were 120,475 terminals at which payment transactions executed using payment cards are acquired, of which 5,148 were ATMs, 114,360 EFTPOS terminals and 967 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. 2014	Total on 31 Dec. 2015	Total on 31 Dec. 2016	Total on 31 Dec. 2017	Total on 31 Dec. 2018
ATMs	4,222	4,418	4,543	4,941	5,148
EFTPOS terminals	99,515	103,434	106,081	118,621	114,360
EFTPOS terminals for withdrawal and deposit	1,519	1,633	936	905	967

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 2018, 5,148 ATMs were recorded in the territory of the RC. The largest number of ATMs was recorded in the City of Zagreb (1,130), and the smallest number of ATMs in Požega-Slavonia County (53) (Table 2). The total number of ATMs in the RC increased by 4.4% from 31 December 2017 (Table 1).

ATMs can be broken down by functions and features.

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

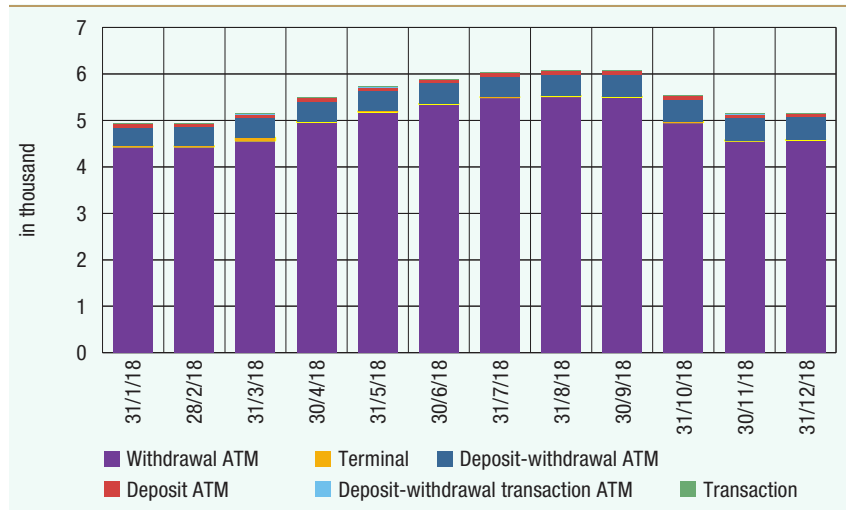
The breakdown of ATMs by functions also shows the data on ATMs that allow users to use different services, such as the review of payment account transactions, the purchase of vouchers, the use of electronic banking, etc., at which it is not possible to effect the payment services of cash deposits, cash withdrawals and execution of credit transfers. For the purposes of the publication, such an ATM is called a 'terminal'.

Table 2 Number of ATMs by counties in the RC
on 31 December 2018

County	Total number of ATMs
County of Zagreb	242
Krapina-Zagorje	112
Sisak-Moslavina	113
Karlovac	115
Varaždin	133
Koprivnica-Križevci	66
Bjelovar-Bilogora	74
Primorje-Gorski kotar	446
Lika-Senj	75
Virovitica-Podravina	57
Požega-Slavonija	53
Slavonski Brod-Posavina	96
Zadar	300
Osijek-Baranja	256
Šibenik-Knin	203
Vukovar-Srijem	119
Split-Dalmatia	748
Istria	440
Dubrovnik-Neretva	274
Međimurje	96
City of Zagreb	1,130
Total	5,148

Source: CNB.

Figure 1 Number of ATMs in the RC according to functions



Note: Data refer to the balance on the last day of each reporting month in 2018.
Source: CNB.

According to their functions, we can distinguish four types of ATM in the territory of the RC (Figure 1).

On 31 December 2018, 4,578 withdrawal ATMs, 481 deposit-withdrawal ATMs, 9 terminals, 78 deposit ATMs and 1 deposit-withdrawal transaction ATM and 1 transaction ATM were recorded in the territory of the RC (Figure 1).

On 31 December 2018, of the total number of ATMs, 1,631 of them were covered by a video surveillance system and 614 were in a secure location. ATMs in a secure location are ATMs located in a special area enclosed for that purpose, physical access being ensured by the application of adequate measures of physical and/or technical protection. An ATM can be categorised in both of the above features.

The implementation of contactless-contact ATMs was observed for the first time in 2017, and on 31 December 2017 a total of 288 of them were recorded. The trend of the implementation of contactless-contact ATMs continued in 2018, so that a total of 476 of them were recorded on 31 December 2018.

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 2018, a total of 114,360 EFTPOS terminals were recorded, a 3.6% decrease from 31 December 2017 (Table 1). The decrease in the number of EFTPOS terminals was the result of the

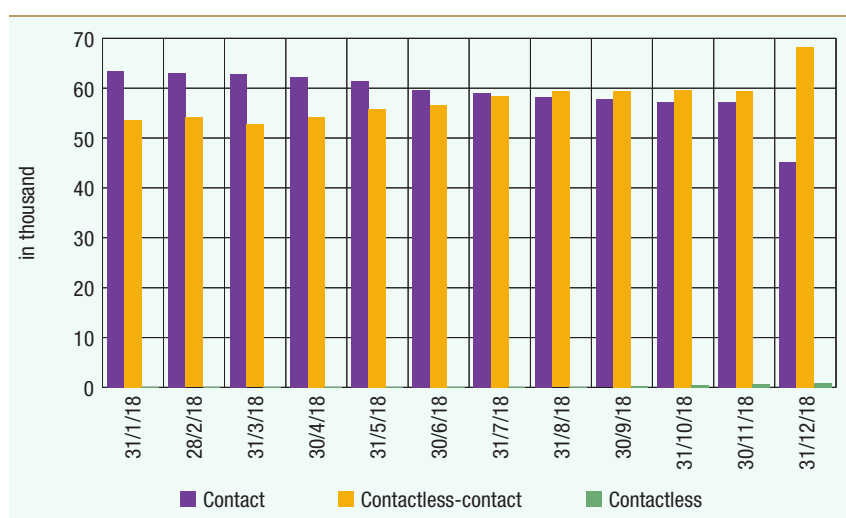
annual review of reporting entities on active EFTPOS terminals at points of sale.

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

As in 2017, in 2018, within the category of EFTPOS terminals, the number of contactless-contact EFTPOS terminals continued to increase from 49,476, as recorded on 31 December 2017, to 68,284, as recorded on 31 December 2018, accounting for 60% of all EFTPOS terminals on 31 December 2018.

The implementation of contactless EFTPOS terminals was observed for the first time in 2017, and on 31 December 2017 a total of 8 of contactless EFTPOS terminals were recorded. The trend of the installation of contactless terminals continued in 2018, so that a total of 941 of them were recorded on 31 December 2018. The number of contact EFTPOS terminals decreased from 69,137 to 45,135, as recorded on 31 December 2017 and 31 December 2018 respectively (Figure 2).

Figure 2 Number of EFTPOS terminals in the RC

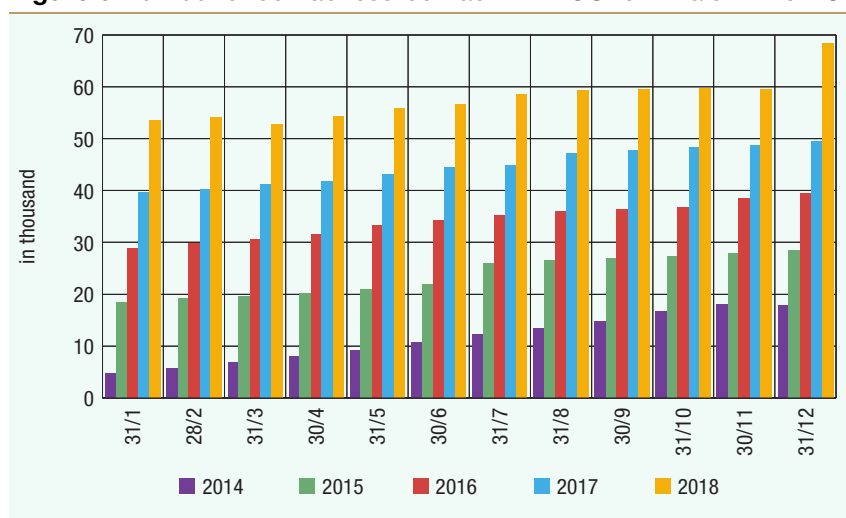


Note: Data refer to the balance on the last day of each reporting month in 2018.
Source: CNB.

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

- on 31 December 2015, 28,407 contactless-contact EFTPOS terminals were recorded, accounting for a 59% increase from 31 December 2014;
- on 31 December 2016, 39,458 contactless-contact EFTPOS terminals were recorded, accounting for a 39% increase from 31 December 2015;
- on 31 December 2017, 49,476 contactless-contact EFTPOS terminals were recorded, accounting for a 25.4% increase from 31 December 2016;
- on 31 December 2018, 68,284 contactless-contact EFTPOS terminals were recorded, accounting for a 38% increase from 31 December 2017 (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.).

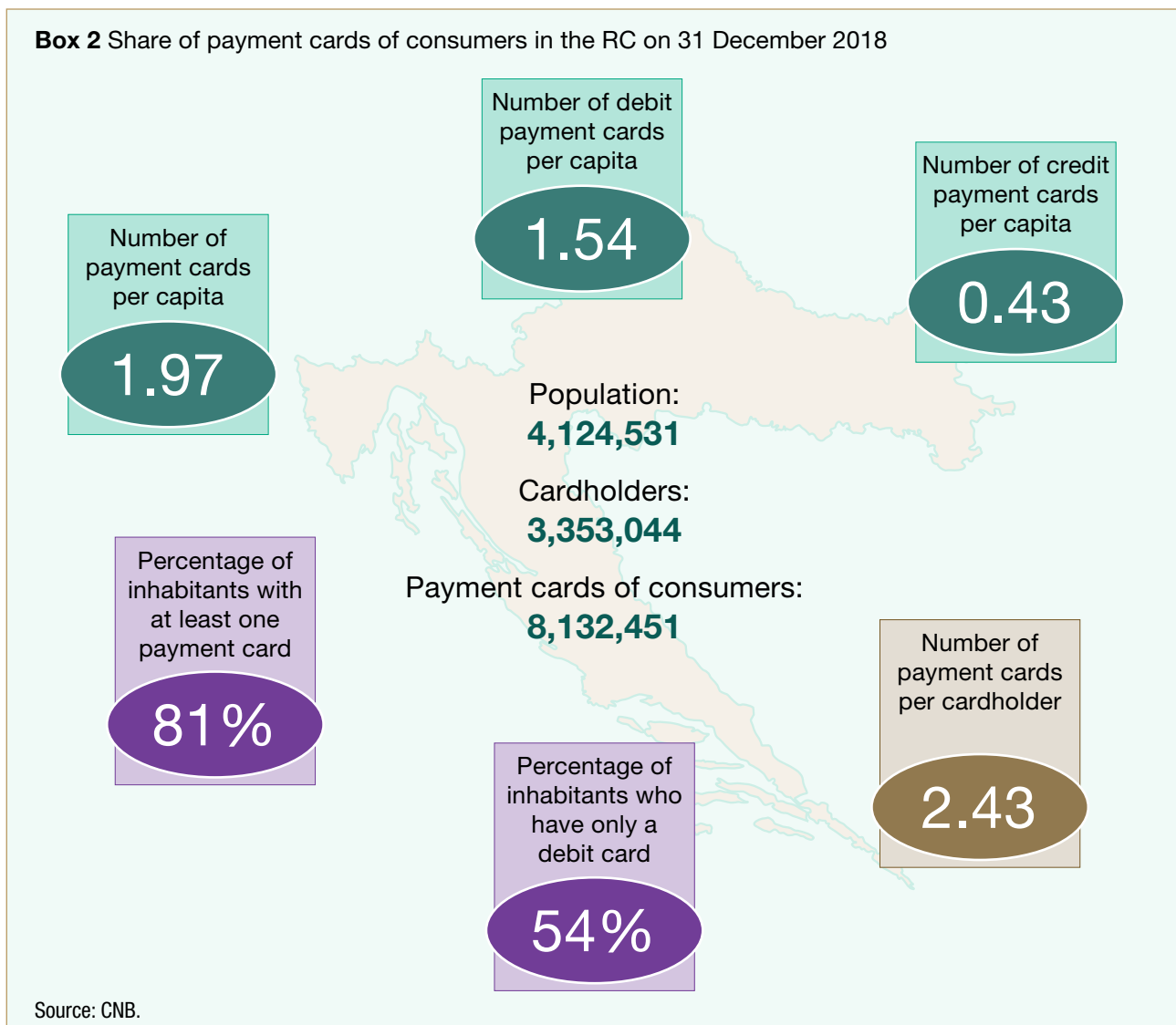
On 31 December 2018, a total of 967 EFTPOS terminals for withdrawal and deposit were recorded, while on 31 December 2017, there were 905 EFTPOS terminals for withdrawal and deposit (Table 1).

3 Payment cards market in the RC

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

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

1. credit institutions (banks) that have obtained authorisation from the CNB, which includes the authorisation to provide the payment service of the issuance of payment cards; and
2. electronic money institutions⁴ that have obtained the authorisation of the CNB to provide the payment service of issuing payment cards.



⁴ Not including data submitted by electronic money institutions that at the same time carry out the activity of telecommunications services.

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

The chapter is divided into three parts:

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

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 cards⁵ (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 expense incurred immediately after the execution of the card-based payment transaction, provided that there is coverage in the account. The coverage in the account also includes the amount of any unused allowed overdraft.
- **Credit payment cards** (hereinafter referred to as ‘credit cards’) allow the holder to pay for goods and services and withdraw cash through the 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

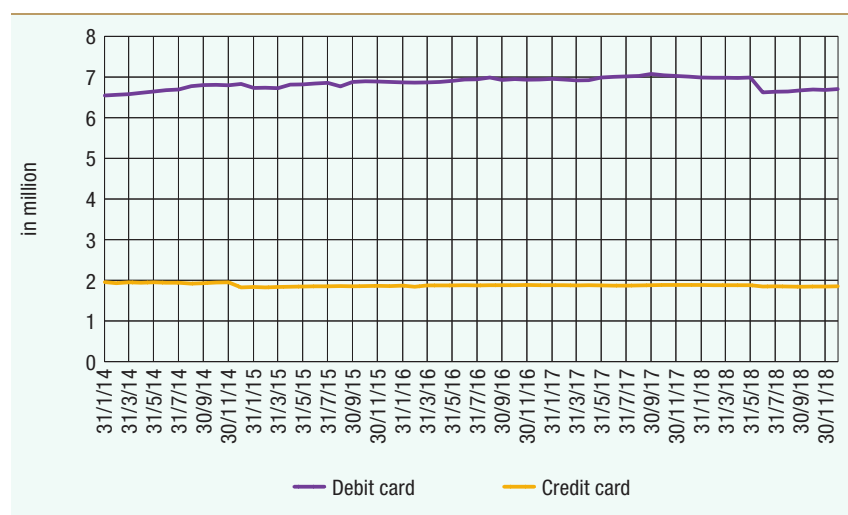
⁵ Statistical data on prepaid payment cards are not included in the overview of this publication.

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.

On 31 December 2018, a total of 8,557,583 payment cards of consumers and business entities (non-consumers) were recorded in the RC, of which 6,704,952 were debit cards (78%) and 1,852,631 were credit cards (22%). On 31 December 2018, the total number of payment cards decreased by 3.78% from 31 December 2017. In the same period, the number of debit and credit cards decreased by 4.38% and 1.54% respectively (Figure 4). The decrease in the number of total payment cards was largely a result of credit institutions' merger by acquisition and the decrease in the number of unused payment cards.

Figure 4 Number of payment cards



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

Source: CNB.

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

On 31 December 2018, a total of 8,132,451 payment cards issued to consumers were recorded in the RC, 85% of which were basic payment cards (Table 3).

Table 3 Number of payment cards issued in the RC by user on 31 December 2018

Type of payment card	Consumer		Non-consumer	Total
	Basic	Additional	Basic	
Debit card	5,322,479	1,036,045	346,428	6,704,952
Credit card	1,626,042	147,885	78,704	1,852,631
Total	6,948,521	1,183,930	425,132	8,557,583

Note: Data refer to the total number of payment cards on 31 December 2018.
Source: CNB.

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

On 31 December 2018, of the total number of cards in the RC, the most represented were debit cards with the share of 78%, followed by charge cards with the share of 8%, and cards with the delayed debit function and revolving cards with a 5% and 4% share respectively. The breakdown of payment cards by types is shown in Table 4.

Table 4 Number of payment cards issued in the RC by type of card on 31 December 2018

Type of payment card	Number of payment cards	Share
Debit card	6,704,952	78%
Charge card	670,386	8%
Delayed debit card	464,020	5%
Revolving card	380,954	4%
Credit card	191,477	2%
Other/membership	145,794	2%
Total	8,557,583	100%

Note: Data refer to the total number of payment cards on 31 December 2018.
Source: CNB.

A payment card may be in/on the following carrier mediums:

- a plastic card; and
- another carrier medium, such as the mobile phone, sticker (a payment card is stored or attached to/on another carrier medium), etc.

Of the total number of all payment cards, on 31 December 2018, 86,356 card stickers were recorded, of which there were 83,813 debit and 2,543 credit cards.

Payment cards by scheme

As explained in Sub-chapter 2.1, in the RC, both debit and credit cards are issued in the four-party card scheme and only credit cards are issued in the three-party card scheme. Thus, on 31 December 2018, a total of 7,598,159 or 89% of all payment cards were recorded in the four-party card scheme system, of which 6,704,952 were debit cards and 893,207 were credit cards.

On 31 December 2018, in the RC, of the total number of credit cards, 959,424 or 52% of them were issued in the three-party card scheme system, while 893,207 or 48% of them were issued in the four-party card scheme system.

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.

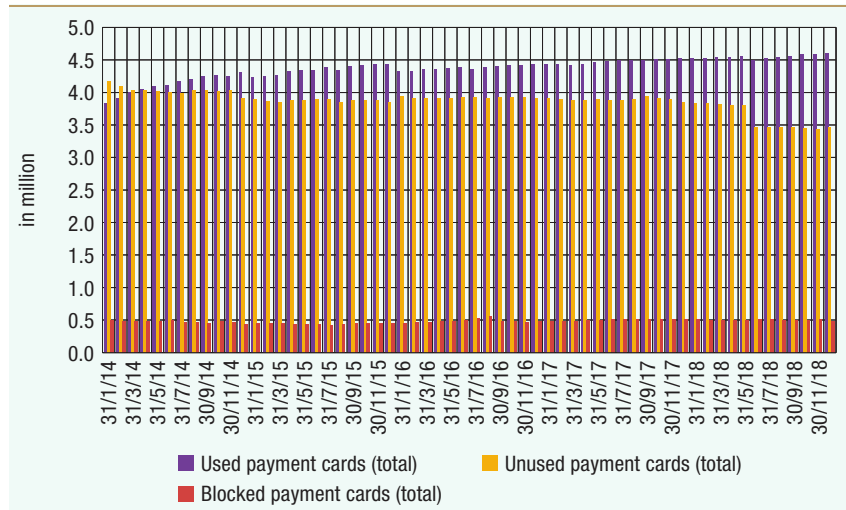
In 2018, the average monthly number of:

- used payment cards stood at 4.55 million;
- unused payment cards stood at 3.61 million;
- blocked payment cards stood at 0.50 million.

The received data on payment cards show that unused cards accounted for as much as 41.7% per month of the total number of payment cards in 2018. Used cards accounted for 52.5% and blocked cards for 5.8%.

A presentation of the number of used, unused and blocked payment cards at the end of each month in 2014, 2015, 2016, 2017 and 2018 is shown in Figure 5.

Figure 5 Number of used, unused and blocked payment cards



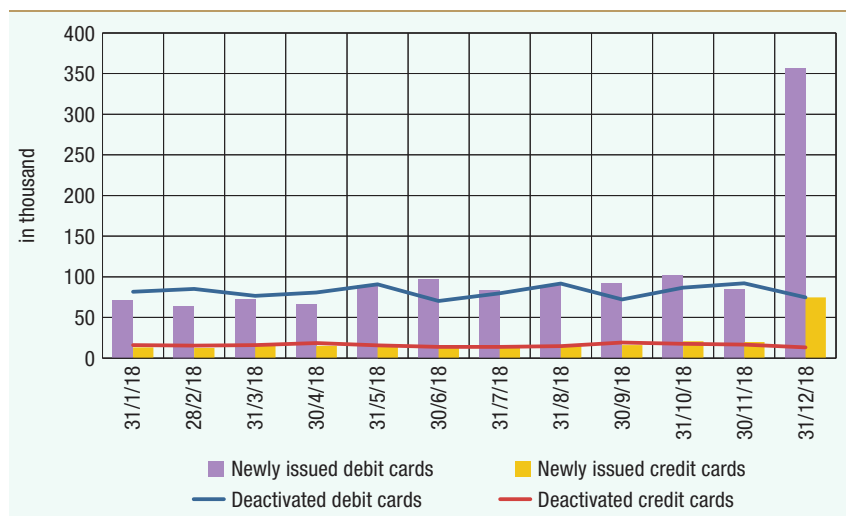
Note: Data refer to the total number of used, unused and blocked payment cards on the last day of each reporting month.
Source: CNB.

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 2018, a total of 1,515,805 payment cards were newly issued, of which 1,266,722 or 82% were debit cards and 249,083 or 18% were credit cards (Figure 6). In 2018, the average monthly number of newly issued

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 2018.
Source: CNB.

debit cards was 105,560, and the average monthly number of newly issued credit cards was 20,757.

The large number of newly issued payment cards in December 2018 was the result of credit institutions' merger by acquisition.

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

In 2018, a total of 1,172,686 payment cards were deactivated, of which 982,133 or 84% were debit cards and 190,553 or 18% were credit cards (Figure 6).

A payment card can be deactivated at the user's initiative, or it can be deactivated by the issuer.

Of the total number of deactivated payment cards, 702,224 or 60% of them were deactivated at the user's initiative, while 470,462 or 40% of them were deactivated by the issuer.

3.1.1 Degree of technological development of payment cards in the RC

Employing different technologies, payment card issuers issue EMV chip cards, chip cards, magnetic and contactless cards and combinations of them to users.

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

The total number of EMV payment cards:

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

Contactless and contact payment cards

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

- **‘Contact payment card’** means a payment card that enables the execution of contact card-based payment transactions and contains records based on a chip and/or magnetic stripe. Contact card-based payment transactions are initiated by swiping or inserting a payment card through/into a device (e.g. an EFTPOS terminal).
- **‘Contactless payment card’** means a payment card that enables the execution of contact and contactless card-based payment transactions and contains records based on a chip and/or magnetic stripe, and records based on contactless technology. Contactless card-based payment transactions are initiated by the payment card being brought close to an accepting device for payment cards (e.g. EFTPOS terminal) that possesses readers for contactless payments. As a rule, contactless payment cards retain all the functionalities of contact payment of contactless 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 2018

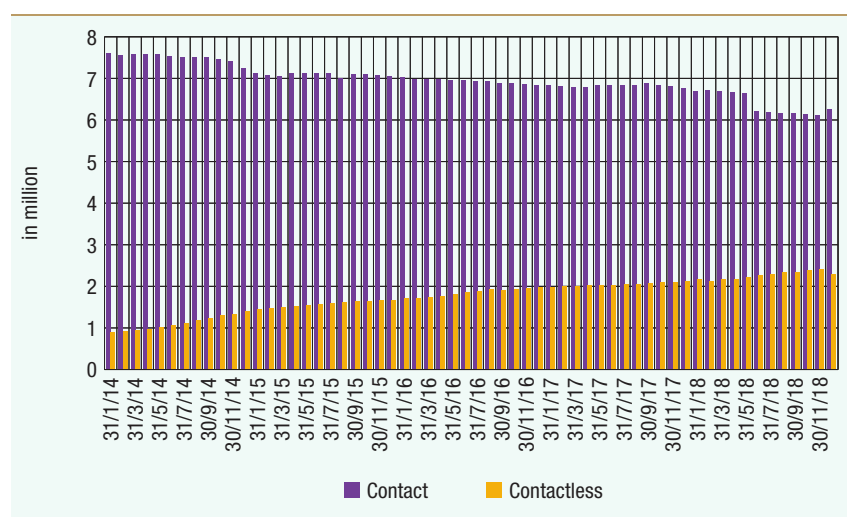
Type of payment card	Contact	Contactless	Total
Debit card	4,529,967	2,174,985	6,704,952
Credit card	1,737,142	115,489	1,852,631
Total	6,267,109	2,290,474	8,557,583

Note: Data refer to the total number of payment cards on 31 December 2018.
Source: CNB.

On 31 December 2018, of the total number of payment cards, 6,267,109 or 73.24% of them were contact and 2,290,474, i.e. 26.76% were contactless (Table 5). The share of contactless payment cards in total payment cards increased from 23.8%, as recorded on 31 December 2017, to 26.76%, as recorded on 31 December 2018. Of the total number of contactless payment cards, 2,174,985 or 95% were debit cards.

In 2018, the number of contact payment cards continued to decrease from 6,776,918, as recorded on 31 December 2017, to 6,267,109, as recorded on 31 December 2018, which represents a fall of 7.5%. In the same period, the number of contactless payment cards increased by 8.2%, i.e. from 2,117,254, as recorded on 31 December 2017, to 2,290,474, as recorded on 31 December 2018 (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.

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 2018, a total of 3,353,044 cardholders (consumers) were recorded, i.e. of the total RC population of 4,124,531⁶, 81% had at least one payment card.

Sixty-six per cent of all cardholders (consumers) hold payment cards issued by only one issuer, 25% hold payment cards issued by two issuers, and 9% of consumers hold payment cards issued by three or more issuers (Table 6).

Table 6 Number of cardholders in the RC (consumers)

Number of PSP issuers	Number of holders	Total debit cards	Total credit cards	Total payment cards
One	2,211,811	3,335,791	414,806	3,750,597
Two	852,540	2,063,766	796,256	2,860,022
Three	231,248	721,328	399,927	1,121,255
Four	47,901	189,416	127,265	316,681
Five and more	9,544	48,223	35,673	83,896
Total	3,353,044	6,358,524	1,773,927	8,132,451

Note: Data refer to the total number on 31 December 2018.

Source: CNB.

On 31 December 2018, the total number of cardholders (consumers) holding a debit card stood at 3,331,236, i.e. 81% of the population of the RC hold at least one debit card. In addition, on 31 December 2018 the number of cardholders holding only a debit card stood at 2,223,633, i.e. 54% of the population of the RC hold only debit cards, i.e. do not hold a credit card. The total number of cardholders (consumers) holding a credit card stood at 1,131,633 or 27% of the population of the RC.

On 31 December 2018, of the total number of cardholders (consumers) 36.08% hold only one payment card, 28.30% two and 16.60% three payment cards.

Business entities (non-consumers)

On 31 December 2018, a total of 221,945 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), 87% of them, hold payment cards issued by one issuer (Table 7).

⁶ Croatian Bureau of Statistics: *First Release "Population Estimate of Republic of Croatia, 2017"*, 14 September 2018.

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	192,000	247,331	26,628	273,959
Two	23,676	72,348	31,992	104,340
Three	4,835	17,473	13,319	30,792
Four	1,143	6,714	5,074	11,788
Five and more	291	2,562	1,691	4,253
Total	221,945	346,428	78,704	425,132

Note: Data refer to the total number on 31 December 2018.
Source: CNB.

Of the total number of cardholders (non-consumers) 62.45% hold only one payment card, and 23.14% two payment cards. In addition, of the total number of cardholders (non-consumers), 84.86% hold only debit cards, 11.96% hold debit and other payment cards, and 3.18% hold only other payment cards.

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 institutions⁷ 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.

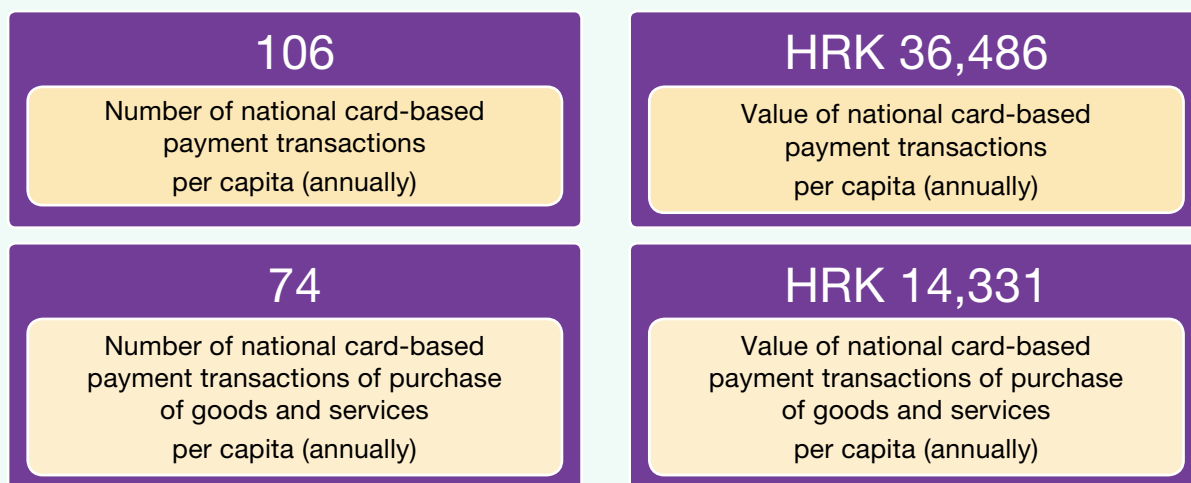
⁷ Not including data submitted by electronic money institutions that at the same time carry out the activity of telecommunications services.

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 2018



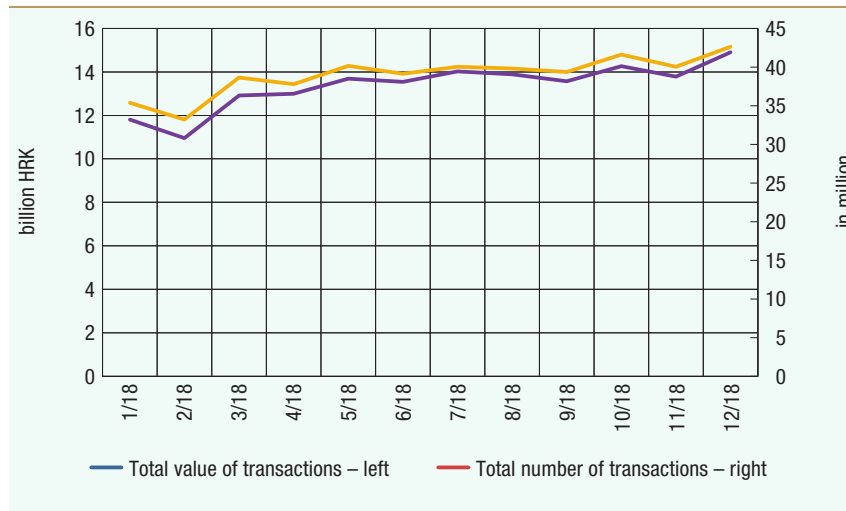
Source: CNB.

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 2018, 25 credit institutions and 2 electronic money institutions were recorded; they issue payment cards in the RC, and their users executed a total of 467.75 million card-based payment transactions with a total value of HRK 160,307.73 million (Figure 8). In 2018, the number of total

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 2018.

Source: CNB.

card-based payment transactions increased by 7.7%, and their value increased by 7.3% from 2017.

The average monthly number of card-based payment transactions stood at 38.98 million, and the average monthly value of transactions at HRK 13,358.98 million.

On average, 9.2 card-based payment transactions were executed monthly per used payment card issued in the RC, with a total value of HRK 3,234.14.

4.1.1 National card-based payment transactions

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

National card-based payment transactions include:

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

A total of 438.34 million national card-based payment transactions with a total value of HRK 150,488.54 million were executed in 2018. In 2018,

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
Number of transactions					
Debit payment card	221,419,360	101,324,845	3,965,756		326,709,961
Credit payment card	84,795,044	4,212,561	6,836	22,616,597	111,631,038
Total	306,214,404	105,537,406	3,972,592	22,616,597	438,340,999
Value of transactions					
Debit payment card	37,221,698,626	77,375,051,217	8,717,642,914		123,314,392,757
Credit payment card	21,885,187,563	4,207,309,051	7,745,412	1,073,908,099	27,174,150,125
Total	59,106,886,189	81,582,360,268	8,725,388,326	1,073,908,099	150,488,542,882
Average value of transaction					
Debit payment card	168	764	2,198		377
Credit payment card	258	999	1,133	47	243
Total	193	773	2,196	47	343

Note: Data refer to the total number and value of national card-based payment transactions in HRK in 2018.
Source: CNB.

the total number of national card-based payment transactions increased by 6.85%, and their value increased by 6.67% from 2017.

Of all national card-based payment transactions, 326.71 million transactions, or 74.53%, were executed using debit cards, with a total value of HRK 123,314.39 million or 81.94% (Table 8). In 2018, the total number of national payment transactions executed using debit cards increased by 10.06%, and the total value increased by 8.03% from 2017.

Of all national card-based payment transactions, 111.63 million transactions, or 25.47%, were executed using credit cards, with a total value of HRK 27,174.15 million or 18.06% (Table 8). In 2018, the total number of national payment transactions executed using credit cards decreased by 1.5%, and the total value increased by 0.94% from 2017.

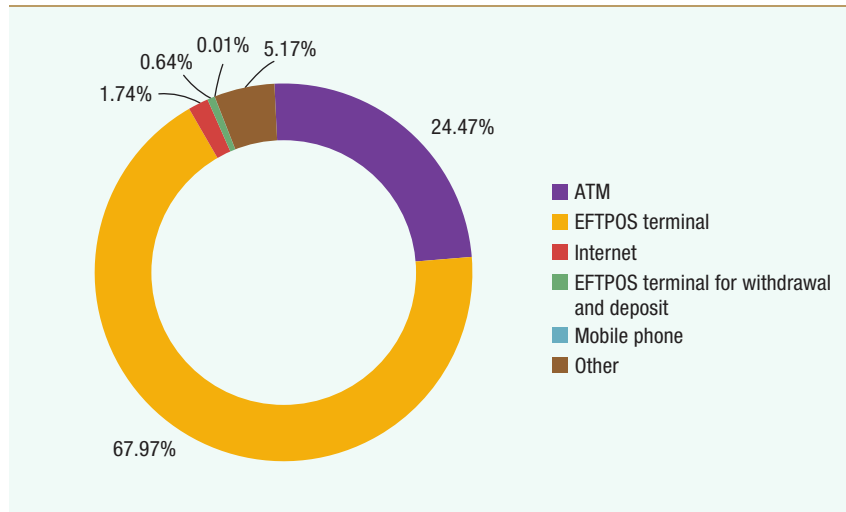
National card-based payment transactions by accepting devices for payment cards

Of the total number of national card-based payment transactions in 2018, broken down by accepting devices for payment cards, the following were executed:

- **through ATMs:** 107.25 million card-based payment transactions with a total value of HRK 85,498.82 million;
- **through EFTPOS terminals:** 297.95 million card-based payment transactions with a total value of HRK 56,761.84 million;
- **through the Internet:** 7.61 million card-based payment transactions with a total value of HRK 2,180.12 million;

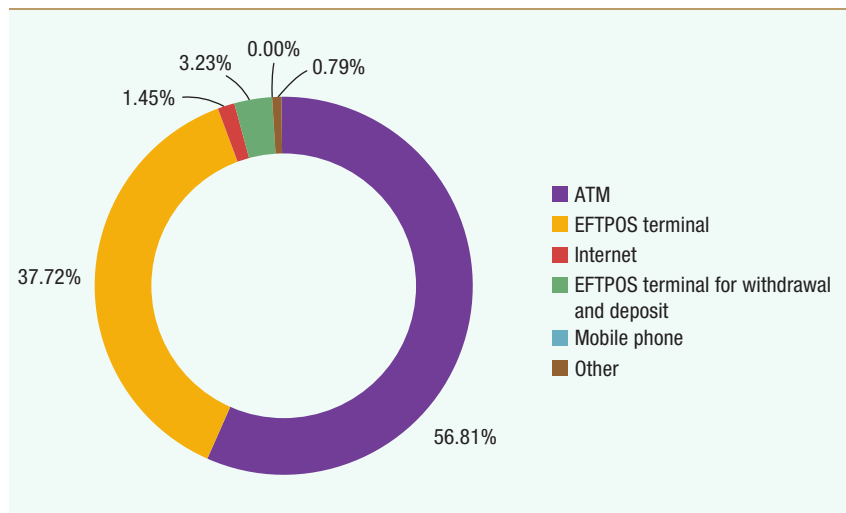
- **through EFTPOS terminals for withdrawal and deposit:** 2.82 million card-based payment transactions with a total value of HRK 4,861.47 million;
- **by mobile telephone:** 0.05 million card-based payment transactions with a total value of HRK 4.75 million; and
- **other:** covers 22.66 million direct debit, standing order, fee and interest transactions, with a total value of HRK 1,181.53 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 2018.
Source: CNB.

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

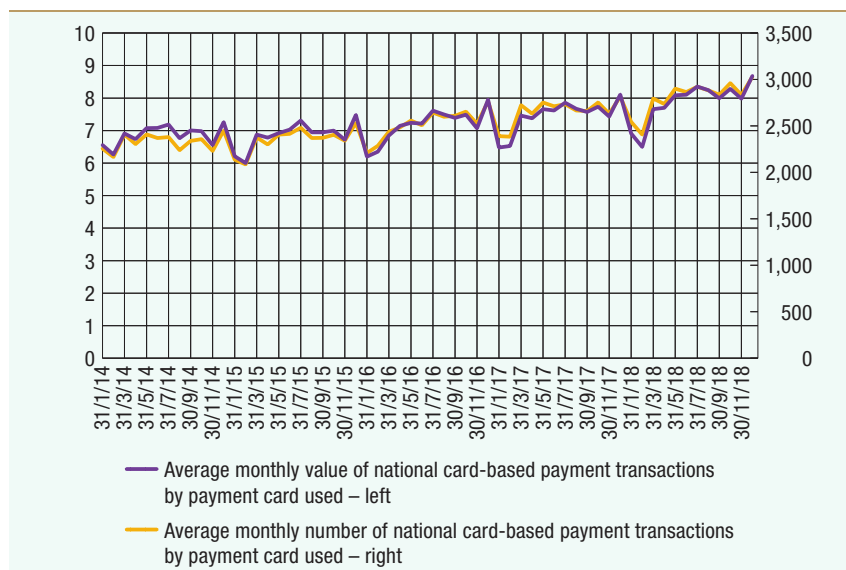


Note: Data refer to the total value of national card-based payment transactions in 2018.
Source: CNB.

It is evident from the data shown that 67.97% of all national card-based payment transactions were executed through EFTPOS terminals, and 24.47% through ATMs (Figure 9). The value of transactions, however, shows an inverse ratio: in terms of the total value of national card-based payment transactions, ATM transactions accounted for 56.81% and EFTPOS terminals 37.72% (Figure 10).

In the RC, on average 8.65 national card-based payment transactions were executed monthly per payment card used, with a total value of HRK 3,038 (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, SMS and through ATMs.

In all, 306.21 million national card-based payment transactions of the purchases of goods and services, with a total value of HRK 59,106.88 million were executed in 2018. Of this number, 221.42 million national card-based payment transactions (72.31%) were executed using debit cards, with a total value of HRK 37,221.69 million or 62.97%. The remaining 84.79 million (27.69%) national card-based payment transactions of the purchases of purchases of goods and services, with a total value of HRK 21,885.18 million (37.03%) were made using credit cards.

In 2018, the total number of national payment transactions of the purchases of goods and services increased by 10.53%, and the total value increased by 10.70% from 2017.

In 2018, the average value of a national card-based payment transaction of the purchase of goods or services stood at HRK 193. 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 168 and in which a credit card was used at HRK 258 (Table 8).

Of the above 306.21 million national card-based payment transactions, a total of 291.45 million transactions were executed using consumer payment cards, with a total value of HRK 52,160.74. Accordingly, 95% of the number and 88% of the value of national card-based payment transactions of the purchases of goods and services were executed using consumer payment cards.

The average value of a national card-based payment transaction of the purchase of goods or services in which a consumer payment card was used stood at HRK 179, while the average for a similar transaction in which a payment card of a business entity (non-consumer) was used was HRK 470.

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

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	218,198,453	34,927,596,357	160
Charge function	47,084,624	10,169,855,931	216
Function of repayment in instalments	6,695,656	7,460,885,677	1,114
Delayed debit function	22,315,871	4,405,669,803	197
Revolving function	10,338,269	1,664,255,721	161
Credit function	1,581,531	478,622,700	303
Total	306,214,404	59,106,886,189	193

Note: Data refer to the total number and value of national card-based payment transactions of purchases of goods and services in 2018.
Source: CNB.

- **function of payment in instalments** – the amount of transactions executed through the use of this function is divided to 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.

Of all national card-based payment transactions of the purchases of goods and services, 71% were executed using the debit function. The value of transactions executed by the debit function accounted for 59% 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.

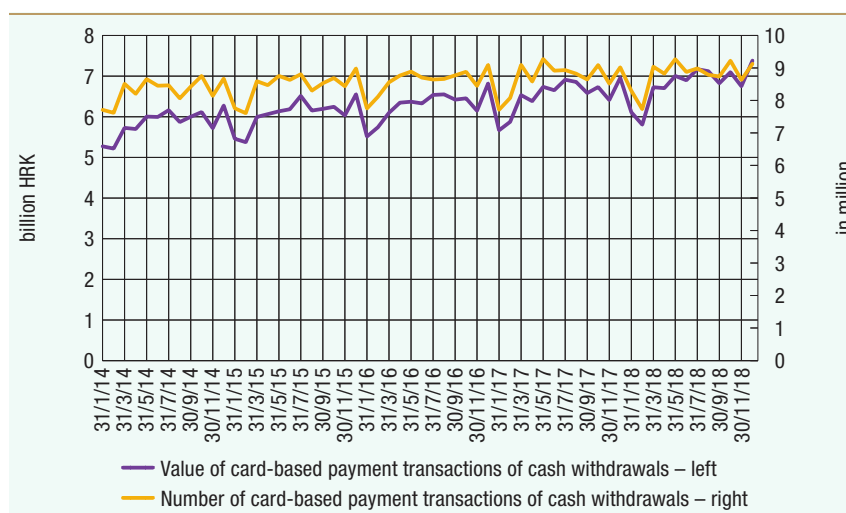
The largest average value of the national card-based payment transaction of the purchase of goods or services in the amount of HRK 1,114 was recorded for card-based payment transactions using the function of repayment in instalments (Table 9).

Cash withdrawals

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

In all, 105.54 million national card-based payment transactions of cash withdrawals, worth a total of HRK 81,582.36 million, were executed in 2018. Debit cards accounted for 101.32 million (96.01%) executed national card-based payment transactions of cash withdrawals, with a total value of HRK 77,375.05 million (94.84%; Table 8). Credit 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.

accounted for 4.21 million (3.99%) executed national card-based payment transactions of cash withdrawals, with a total value of HRK 4,207.31 million (5.16%; Table 8).

In 2018, the total number of national card-based payment transactions of cash withdrawals increased by 0.03%, and their value increased by 3.41% from 2017 (Figure 12).

Of the total number of national card-based payment transactions, 102.14 million (97%) cash withdrawal transactions using consumer payment cards and 3.4 million (3%) using business entity (non-consumer) payment cards were executed.

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	100,874,463	76,964,992,267	763
Charge function	1,058,353	1,367,083,536	1,292
Function of repayment in instalments	454,131	412,237,077	908
Delayed debit function	1,519,962	1,767,986,569	1,163
Revolving function	1,198,575	652,752,307	545
Credit function	431,922	417,308,512	966
Total	105,537,406	81,582,360,268	773

Note: Data refer to the total number and value of national card-based payment transactions of cash withdrawals in 2018.

Source: CNB.

Of the total value of national card-based payment transactions, HRK 75,270.18 million (92.2%) cash withdrawal transactions using consumer payment cards and HRK 6,312.17 million (7.8%) using business entity (non-consumer) payment cards were executed.

In 2018, the average value of a national card-based payment transaction of a cash withdrawal stood at HRK 773 (with the use of a debit card the average value stood at HRK 764, while that with the use of a credit card was HRK 999).

The average value of a national card-based transaction of a cash withdrawal in which a consumer payment card was used stood at HRK 736, and the corresponding value in which a payment card of a business entity (non-consumer) was used was HRK 1,858.

Of the total number of national card-based payment transactions of cash withdrawals, 96% were executed using the debit function. The value of transactions executed using the debit function accounted for 94% 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 1,292 was recorded for card-based payment transactions using the charge function (Table 10).

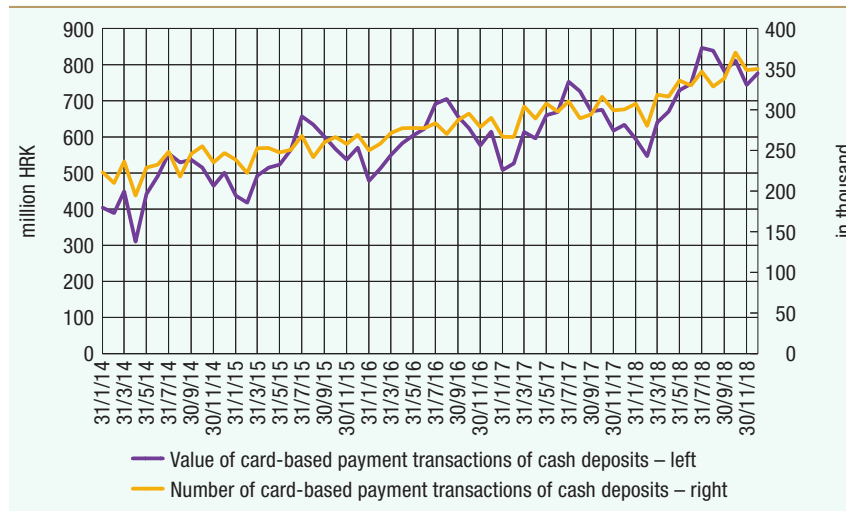
Cash deposits

'Cash deposits' covers payment transactions of the deposits of funds to the account for payment using the issuer's payment card through ATMs and 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 2018, a total of 3.97 million national card-based cash deposit payment transactions, worth a total of HRK 8,725.39 million were executed, 3.65 million transactions of which, with a total value of HRK 7,409.9 million, were executed through ATMs. Over 99.83% of all national card-based cash deposit payment transactions, in both number and value, were executed with the use of debit cards.

Of the total of 3.97 million national card-based payment transactions, 2.93 million (73.90%) cash deposit transactions were executed using consumer payment cards, with a total value of HRK 4,615.47 million, or 52.9% of the value of all such transactions, while 1.04 million (26.10%)

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.

transactions, with a total value of HRK 4,109.92 million, or 47.10%, were executed using the payment cards of business entities (non-consumers).

In 2018, the total number of national card-based cash deposit payment transactions increased by 12.14%, the value having increased by 14.06% from 2017 (Figure 13).

In 2018, the average value of a national card-based payment transaction of a cash deposit stood at HRK 2,196. The average value of a national card-based payment transaction of a cash deposit in which a debit card was used stood at HRK 2,198, and the average in which a credit card was used was HRK 1,133.

The average value of a national card-based payment transaction of a cash deposit using a consumer payment card stood at HRK 1,572.16, while that in which a payment card of a business entity (non-consumer) was used was HRK 3,963.9.

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 22.62 million transactions of contractual debits, worth a total of HRK 1,073.91 million, were executed in 2018. The largest number of

transactions, 19.51 million (86.28%) of them, with a total value of HRK 710.28 million (66.14%), were fee, membership fee, interest and similar transactions, which cardholders paid through their payment cards to the issuers. The remaining 3.11 million transactions (13.72%) were payment transactions of direct debits executed through payment cards, with a total value of HRK 363.63 million (33.86%).

In 2018, the average value of a contractual debit transaction stood at HRK 47. The average value of interest, fee, membership fee and similar transactions, which cardholders paid through payment cards stood at HRK 36, while the average value of payment transactions of direct debits executed through payment cards stood at HRK 117.

Unauthorised use (fraud)

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

A total of 19,946 national card-based payment transactions of unauthorised use were established in 2018, worth a total of HRK 11,773,247. In 2018, the average value of a national card-based payment transaction in which unauthorised use was established stood at HRK 590.

Of the total national card-based payment transactions, 16,967 (85%) transactions of unauthorised use using consumer payment cards were identified, worth a total of HRK 9,181,716, or 77.99%, while 2,979 or 15% transactions, with a total value of HRK 2,591,531, or 22.01%, were identified in transactions using the payment cards of business entities (non-consumers).

4.1.2 International card-based payment transactions

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

International card-based payment transactions include:

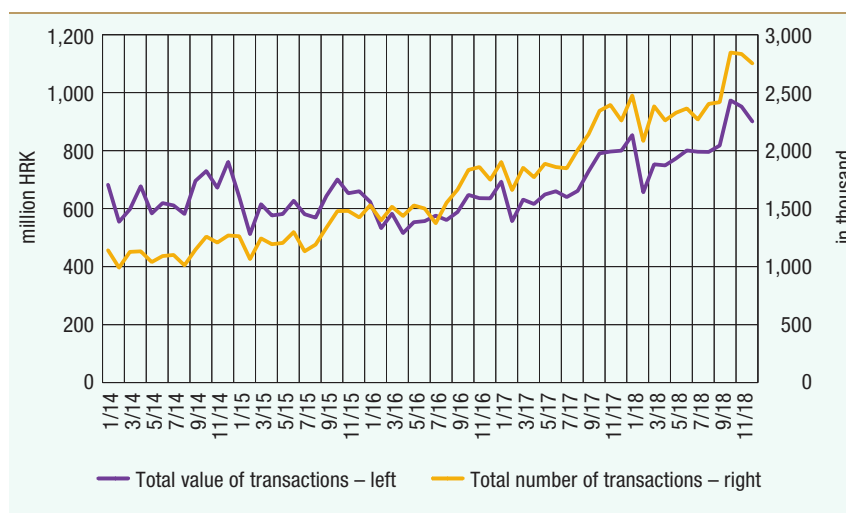
- payment transactions of the purchases of goods and services using an issuer’s payment cards executed outside the RC (in other member states or third countries); and
- payment transactions of cash withdrawals using an issuer’s payment cards executed outside the RC (in other member states or third countries).

Data on international card-based payment transactions are shown in kuna, i.e. 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 29.41 million international card-based payment transactions, worth a total of HRK 9,819.18 million were executed in 2018. The average value of an international card-based payment transaction stood at HRK 334.

The average monthly number of international card-based payment transactions stood at 2.45 million, and the average monthly value of transactions at HRK 818.26 million. In 2018, the total number of international card-based payment transactions increased by 22% from 2017, while the total value of international card-based payment transactions increased by 18.7% 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.

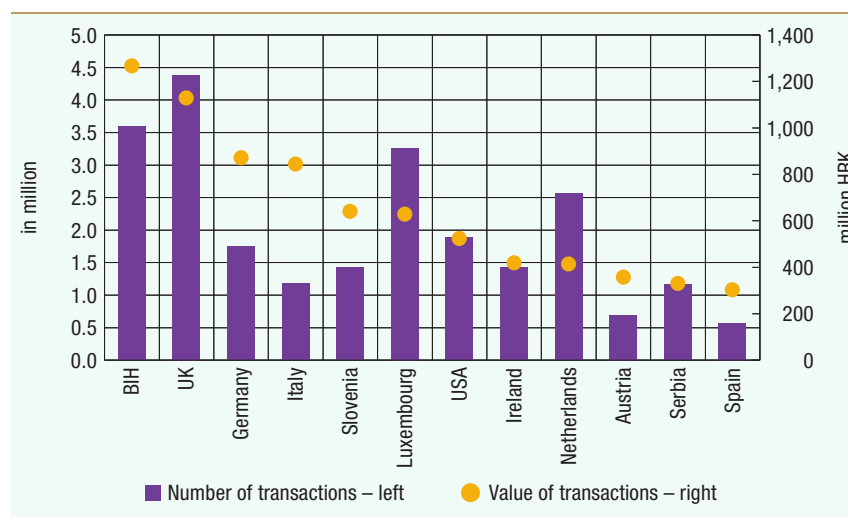
Source: CNB.

Of the total number and value of international card-based payment transactions, 93.93% of the number and 83.92% of the value of international card-based payment transactions were executed with the use of consumer cards, while 6.07% of the number and 16.07% 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 136 currencies and 215 countries.

From the received data on international card-based payment transactions broken down by countries it is evident that in the eight most represented countries (Bosnia and Herzegovina, Slovenia, Germany, Italy, the United States, the United Kingdom, Luxembourg and Ireland) the total value of card-based payment transactions stood at HRK 6,321.81 million, accounting for 64% 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 2018.

Source: CNB.

Figure 15 shows states in which holders of payment cards issued in the RC executed card-based payment transactions with a total value of over 300 million kuna.

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 institutions⁸ 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’).

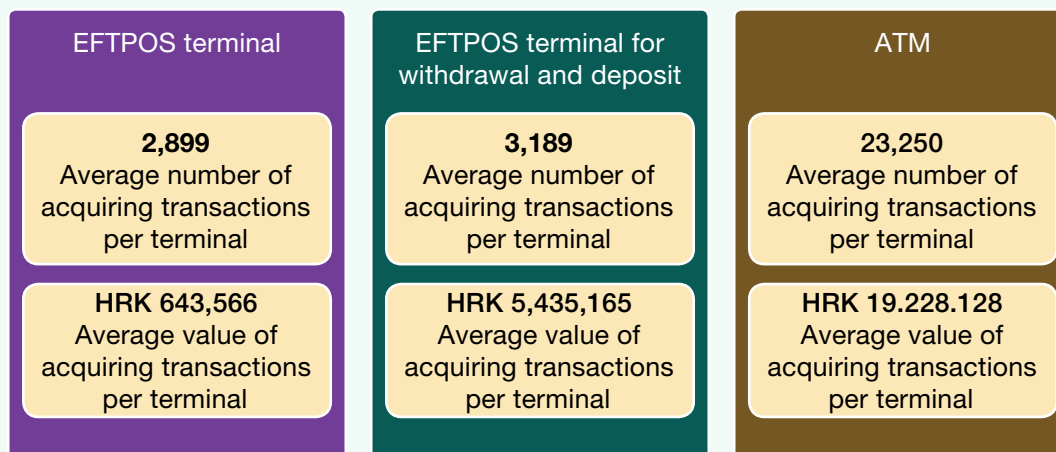
The acquiring of payment cards of Croatian issuers is divided into the acquiring of payment transactions executed using payment cards the acquirer itself has issued and the acquiring of payment transactions executed using payment cards of other Croatian issuers.

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);

⁸ Not including data submitted by electronic money institutions that at the same time carry out the activity of telecommunications services.

Box 4 Transactions of the acquiring of payment cards according to accepting devices for payment cards in 2018



Source: CNB.

- 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).

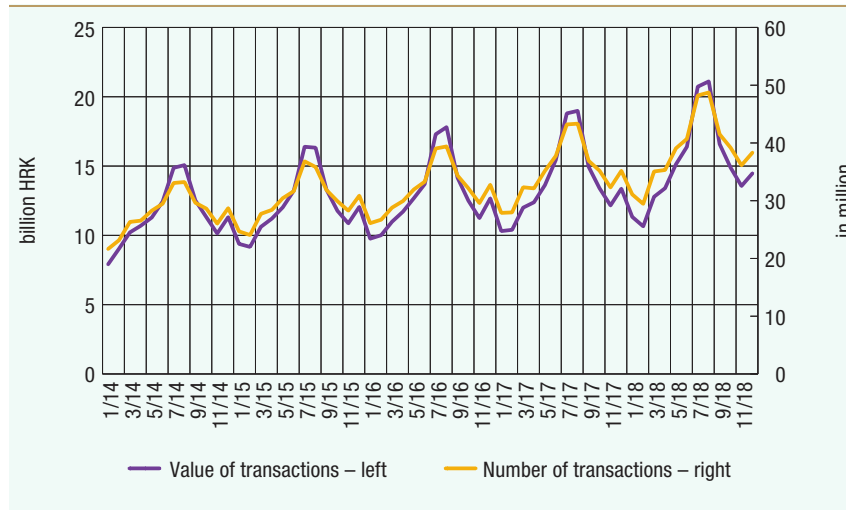
5.1 Total acquiring of payment transactions executed using payment cards

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

In all, 462.77 million acquiring transactions, with a total value of HRK 181,026.65 million, were executed in 2018 (Figure 16). In 2018, the total number of acquiring transactions increased by 10.4%, and their value increased by 9.2% from 2017.

A total of 31.1 million acquiring transactions, with a total value of HRK 11,329.21 million, were recorded in January 2018. During the subsequent months, the number and value of acquiring transactions grew until August in which they reached the highest level, 48.7 million transactions, with a total value of HRK 21,103.74 million. From September, the number and value of acquiring transactions had a downward trend until

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.

December in which 38.3 million acquiring transactions were recorded, with a total value of HRK 14,476.59 million.

The acquiring service is provided at contractual merchants, i.e. business entities 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 (EFTPOS terminal and Internet). On 31 December 2018, a total of 32,825 contractual merchants were recorded, of which 2,387 offer the possibility of payment by payment cards through the Internet at their point of sale. Of the total number of contractual merchants (32,825), 29,620 offer the possibility of payment by payment cards only through EFTPOS terminals. Furthermore, 818 contractual merchants offer the possibility of payment by payment cards only through the Internet, i.e. without the possibility of purchase through a physical EFTPOS terminal. The above number of contractual merchants is shown independently of the number of acquiring locations the merchant is using. A retail chain is thus recorded as a contractual merchant, regardless of the number of points of sale and accepting devices for payment cards that are used.

Of the total of the above 32,825 contractual merchants 15,252 or 46% of them have the service of acquiring contracted with only one payment service provider – acquirer, 8,987 (27%) of them have the service of acquiring contracted with two acquirers, and 7,124 (22%) with three 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).

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
Number of transactions						
Credit institutions	118,680,822	130,495,497	1,222,863	2,985,912	–	253,385,094
Electronic money institutions and payment institutions	1,010,038	201,058,294	7,191,596	98,005	27,859	209,385,792
Total	119,690,860	331,553,791	8,414,459	3,083,917	27,859	462,770,886
Value of transactions, in HRK						
Credit institutions	97,833,742,991	29,128,198,392	445,333,397	5,002,927,461	–	132,410,202,241
Electronic money institutions and payment institutions	1,152,660,622	44,470,008,903	2,638,743,048	252,877,552	102,153,519	48,616,443,644
Total	98,986,403,613	73,598,207,295	3,084,076,445	5,255,805,013	102,153,519	181,026,645,885

Note: Data refer to the total number and value of acquiring transactions in HRK in 2018.

Source: CNB.

Of the total number of acquiring transactions, 25.86% of transactions were acquired through ATMs, 71.64% through EFTPOS terminals, 1.82% through the Internet, 0.67% through EFTPOS terminals for withdrawal and deposit and 0.01% were other transactions.

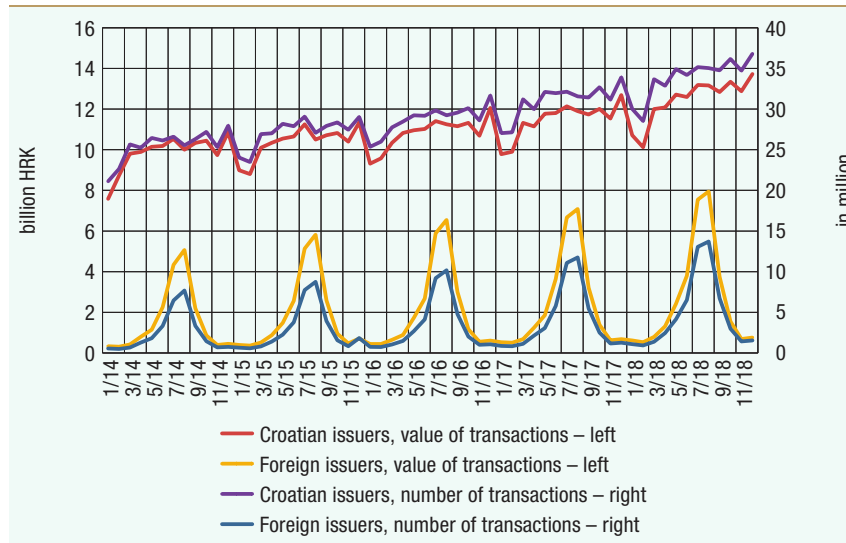
Of the total value of acquiring transactions, 54.68% of transactions were acquired through ATMs, 40.66% through EFTPOS terminals, 1.70% through the Internet and 2.90% through EFTPOS terminals for withdrawal and deposit and 0.06% were other transactions.

In all, 119.69 million transactions, worth a total of HRK 98,986.40 million, were acquired through ATMs in 2018. Credit institutions participated in the acquiring of transactions executed using payment cards for the purpose of cash withdrawals through ATMs with a share of 99% in the number and value of transactions.

In all, 331.55 million transactions, worth a total of HRK 73,598.21 million, were acquired through EFTPOS terminals in 2018. Electronic money institutions and payment institutions accounted for 60.64% of the share in the number of transactions and 60.42% 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 2018 stood at 8.41 million with a total value of HRK 3,084.07 million. Of the total service of the acquiring of payment transactions executed using payment cards through the Internet, electronic money institutions and payment institutions accounted for a share of 85% both in the number and in the value of transactions.

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



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

The average value of an acquiring transaction stood at HRK 391 in 2018:

- **through EFTPOS terminals:** HRK 222;
- **through the Internet:** HRK 367;
- **through ATMs:** HRK 827;
- **through EFTPOS terminals for withdrawal and deposit:** HRK 1,704; and
- **through other means:** HRK 3,667.

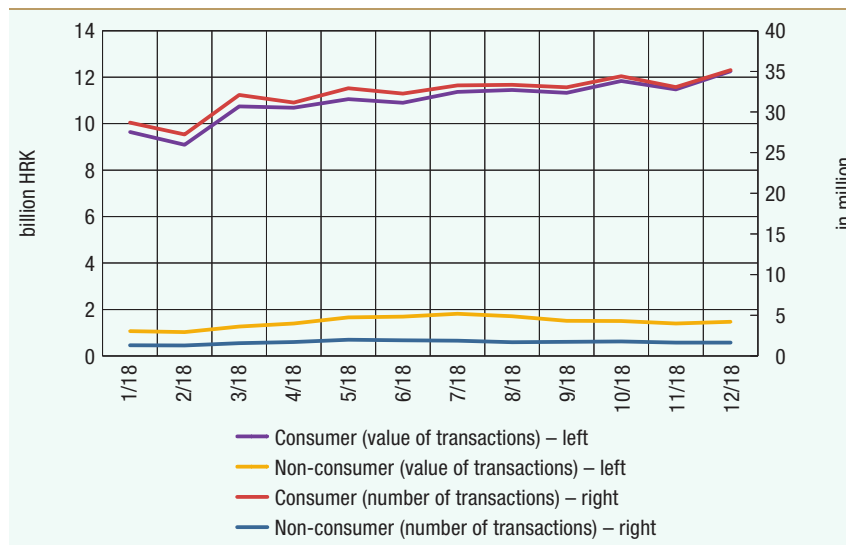
Of the total of 462.77 million acquiring transactions executed in 2018, 88% refers to payment cards of Croatian issuers, and 12% to those of foreign issuers. In 2018, of the total HRK 181,026.64 million's worth of acquiring transactions executed, 82% refers to payment cards of Croatian issuers, and 18% to payment cards of foreign issuers (Figure 17).

In 2018, the total number of acquiring transactions of foreign issuers increased by 18.90%, and their value increased by 12.74% from 2017.

In 2018, the total number of acquiring transactions of Croatian issuers increased by 9.27%, and their value increased by 8.44% from 2017.

In 2018, a total of 406.83 million transactions of the acquiring of payment transactions executed using payment cards of Croatian issuers were executed, worth a total of HRK 149,332.97 million, of which the following were acquired (Figure 18):

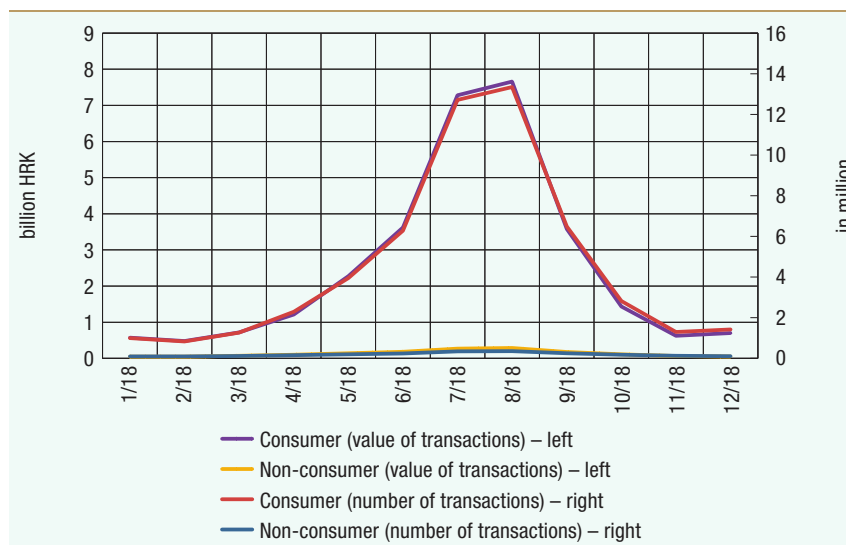
Figure 18 Total number and value of transactions of the acquiring of payment transactions executed using payment cards of Croatian issuers according to cardholder



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

Source: CNB.

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 acquiring of payment transactions executed using foreign issuers' payment cards.

Source: CNB.

- **payment cards of consumers:** 386.68 million transactions, worth a total of HRK 131,804.35 million; and
- **payment cards of non-consumers (business entities):** 20.15 million transactions, worth a total of HRK 17,528.62 million.

In 2018, in all 55.94 million transactions of the acquiring of payment transactions executed using payment cards of foreign issuers were executed, worth a total of HRK 31,693.67 million, of which the following were acquired (Figure 19):

- **payment cards of consumers:** 53.68 million transactions, worth a total of HRK 30,153.93 million; and
- **payment cards of non-consumers (business entities):** 2.26 million transactions, worth a total of HRK 1,539.74 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 73.60%, cash withdrawals accounted for 25.55% and cash deposits for 0.86%. In terms of value, a somewhat inverse ratio is seen: of the total value of acquiring transactions, purchases of goods and services accounted for 42.38%, cash withdrawals accounted for 52.82% and cash deposits for 4.80%.

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

In all, 340.58 million acquiring transactions for the purchases of goods and services, worth a total of HRK 76,718.13 million (own cards, cards of other Croatian issuers and cards of foreign issuers) were executed in 2018. In 2018, the total number of acquiring transactions for the purchases of goods and services increased by 13.11%, and their value increased by 13.17% from 2017.

'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 2018, the total number of acquiring transactions of cash withdrawal came to 118.23 million, with a total value of HRK 95,616.88 million, an increase of 3.04% in the number of transactions and 5.75% in the value of transactions from 2017.

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

In 2018, the total number of acquiring transactions of cash deposits came to 3.96 million, with a total value of HRK 8,691.48 million, an increase of 12.50% in the number of transactions and 14.25% in the value of transactions from 2017.

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 the transactions of acquiring of payment transactions executed using payment cards of Croatian issuers.

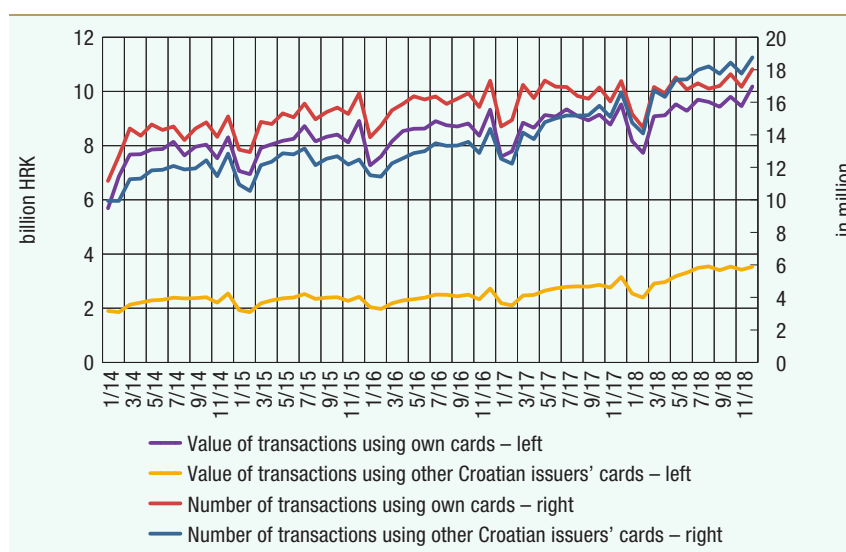
The acquiring of payment transactions executed using payment cards of Croatian issuers is divided into the acquiring of payment transactions executed using payment cards the acquirer itself has issued (hereinafter referred to as 'own cards') and the acquiring of payment transactions executed using payment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

In 2018, a total of 406.83 million acquiring transactions were executed, worth a total of HRK 149,332.97 million, of which the following were acquired (Figure 20):

- **own cards:** 201.22 million transactions, worth a total of HRK 111,093.56 million; and
- **cards of other Croatian issuers:** 205.61 million transactions, worth a total of HRK 38,239.41 million.

In 2018, the total number of acquirings of payment transactions executed using payment cards of Croatian issuers increased by 9.3%, and the total value increased by 8.4% from 2017.

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 transactions of acquiring during each reporting month.

Source: CNB.

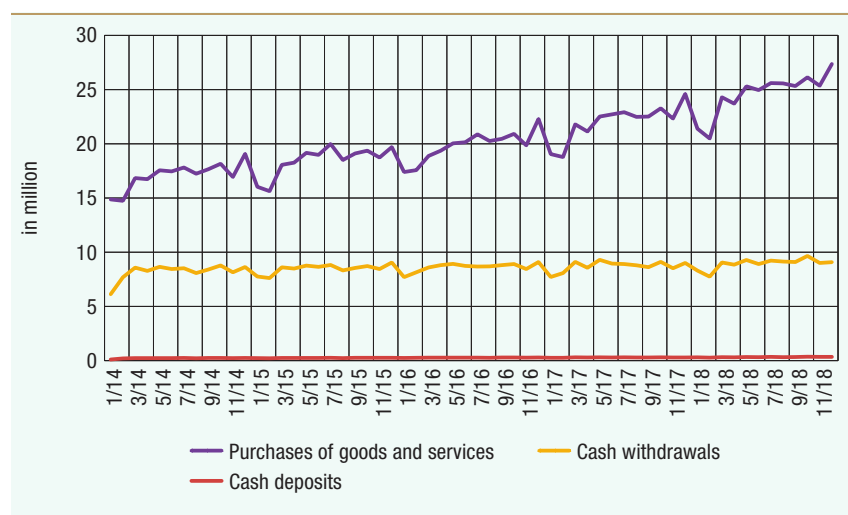
Figure 20 shows the total number and value of transactions of the acquiring of payment transactions executed using payment cards issued in the RC by issuer at a monthly level in 2014, 2015, 2016, 2017 and 2018. It is evident that acquirers most frequently acquired payment transactions executed using their 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, 26.77% of transactions were acquired through ATMs, 70.70% through EFTPOS terminals, 1.79% through the Internet, 0.73% through EFTPOS terminals for withdrawal and deposit and 0.01% through other means. If total values of transactions of the acquiring of payment transactions executed using Croatian issuers' payment cards are observed, 58.17% of transactions were acquired through ATMs, 36.97% through EFTPOS terminals, 1.45% through the Internet, 3.34% through EFTPOS terminals for withdrawal and deposit and 0.07% through other means.

In 2018, the average value of a transaction of the acquiring of payment transactions executed using Croatian issuers' payment cards stood at:

- **through EFTPOS terminals:** HRK 192;
- **through the Internet:** HRK 298;
- **through ATMs:** HRK 797;
- **through EFTPOS terminals for withdrawal and deposit:** HRK 1,684; and
- **through other means:** HRK 3,667.

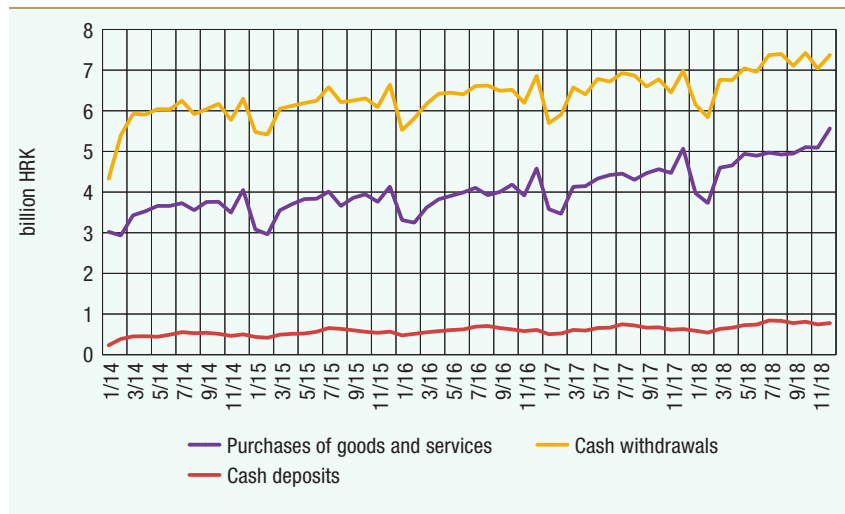
In 2018, the average number of transactions of the acquiring of payment transactions executed using Croatian issuers' payment cards stood at

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.

33.9 million a month, and the average value of transactions was HRK 12,444.4 million a month.

From a review of the transactions of acquiring of payment transactions executed using Croatian issuers' payment cards according to type of transaction, cash withdrawals were the most represented, accounting in the total value of acquiring transactions for 55.74%, followed by the purchases of goods and services with 38.44%, and cash deposit with 5.82% (Figures 21 and 22).

Purchases of goods and services

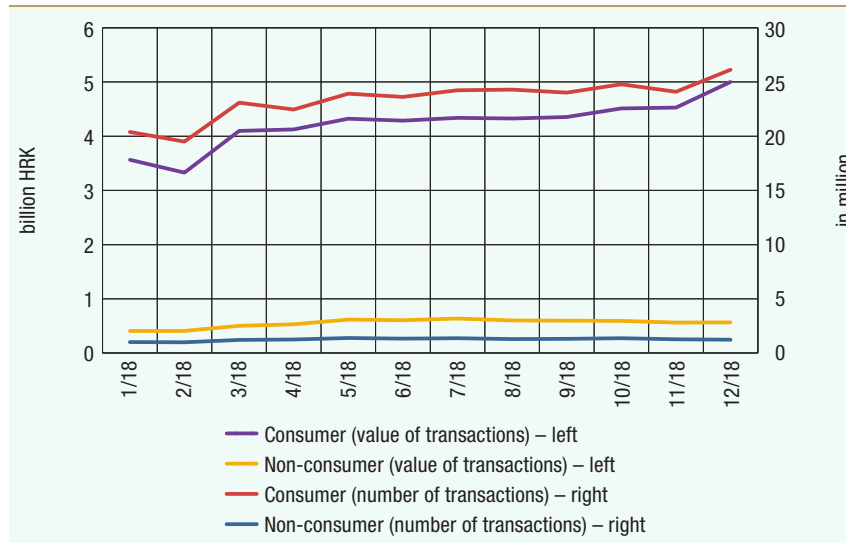
The term 'purchases of goods and services' includes the transactions of the acquiring of payment transactions executed using payment cards for the purchased goods and services executed through EFTPOS terminals, the Internet and ATMs.

In 2018, 295.49 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 57,410.69 million, executed by payment cards issued in the RC.

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

- **through EFTPOS terminals:** 287.59 million transactions (97.33%) were acquired, with a total value of HRK 55,198.16 (96.15%);

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 acquiring of Croatian issuers' payment cards for the purchases of goods and services.
Source: CNB.

- **through the Internet:** 7.28 million transactions (2.46%) were acquired, with a total value of HRK 2,172.31 million (3.78%); and
- **through ATMs:** 0.62 million transactions (0.21%) were acquired, with a total value of HRK 40.22 million (0.07%) (most frequently the purchase of phone vouchers, plane tickets, etc.).

The average value of transactions of the acquiring of payment transactions for the purchases of goods and services, executed using payment cards of Croatian issuers in 2018 stood at:

- **through EFTPOS terminals:** HRK 192;
- **through the Internet:** HRK 298; and
- **through ATMs:** HRK 65.

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

- **consumers:** 280.48 million transactions (95%) were acquired, with a total value of HRK 50,778.39 million (88%); and
- **non-consumers:** 15.01 million transactions (5%) were acquired, with a total value of HRK 6,632.3 million (12%).

Cash withdrawals

'Cash withdrawals' covers the transactions of the acquiring of payment transactions of 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, 107.37 million transactions of the acquiring of payment transactions of cash withdrawals, executed using payment cards of Croatian issuers, worth a total of HRK 83,230.80 million, were executed in 2018.

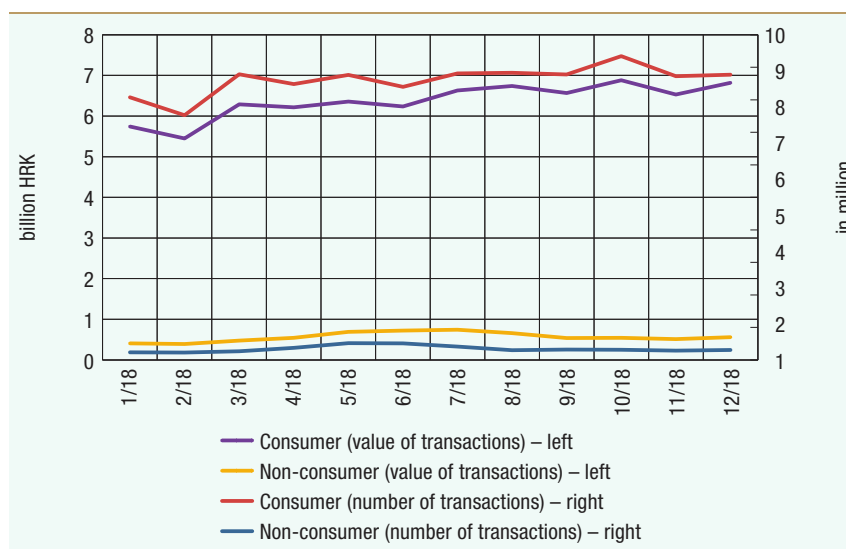
Of all the transactions of the acquiring of payment transactions of cash withdrawals, executed using payment cards issued in the RC:

- **through ATMs:** 104.68 million transactions (97.49%) were acquired, with a total value of HRK 79,454.41 million (95.46%);
- **through EFTPOS terminals for withdrawal and deposit:** 2.64 million transactions (2.46%) were acquired, with a total value of HRK 3,669.41 million (4.41%);
- **through EFTPOS terminals:** 0.02 million transactions (0.02%) were acquired, with a total value of HRK 4.82 million (0.01%); and
- **through other means:** 0.03 million transactions (0.03%) were acquired, with a total value of HRK 102.15 million (0.12%).

The average value of the transactions of acquiring of payment transactions of cash withdrawals executed using payment cards issued in the RC in 2018 stood at:

- **through ATMs:** HRK 759;
- **through EFTPOS terminals for withdrawal and deposit:** HRK 1,389;
- **through EFTPOS terminals:** HRK 259; and

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.

- **other:** HRK 3,667.

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

- **consumers:** 103.29 million transactions (96%) were acquired, with a total value of HRK 76,443.85 million (92%); and
- **non-consumers:** 4.07 million transactions (4%) were acquired, with a total value of HRK 6,786.96 million (8%).

Cash deposits

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

A total of 3.96 million transactions of the acquiring of payment transactions for cash deposits, executed using payment cards of Croatian issuers, worth a total of HRK 8,691.48 million, were recorded in 2018.

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

- **through ATMs:** 3.64 million transactions (91.96%) were acquired, with a total value of HRK 7,377.91 million (84.89%); and
- **through EFTPOS terminals for withdrawal and deposit:** 0.32 million transactions (8.04%) were acquired, with a total value of HRK 1,313.57 million (15.11%).

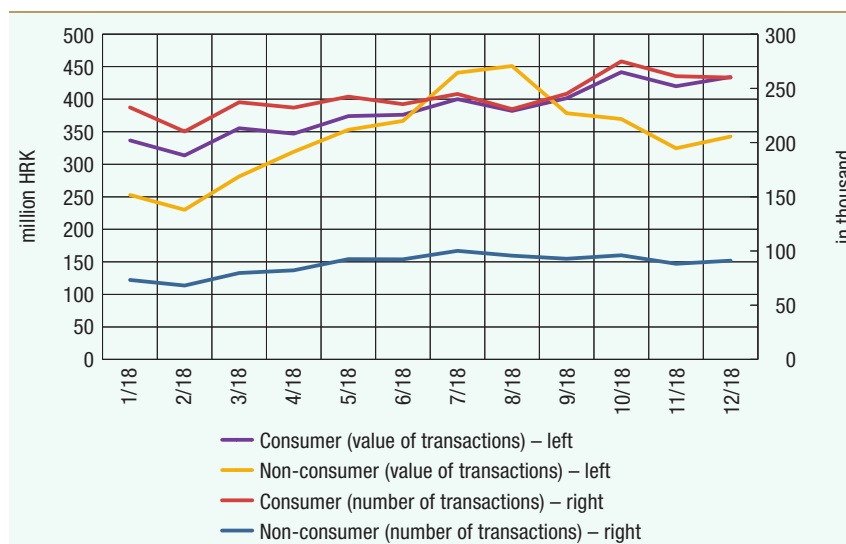
The average value of transactions of the acquiring of payment transactions of cash deposits executed using payment cards issued in the RC in 2018 stood at:

- **through ATMs:** HRK 2,026; and
- **through EFTPOS terminals for withdrawal and deposit:** HRK 4,128.

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

- **consumers:** 2.91 million transactions (73%) were acquired, with a total value of HRK 4,582.11 million (53%); and
- **non-consumers:** 1.05 million transactions (27%) were acquired, with a total value of HRK 4,109.37 million (47%).

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.

5.1.2 Acquiring of payment transactions executed using payment cards issued abroad

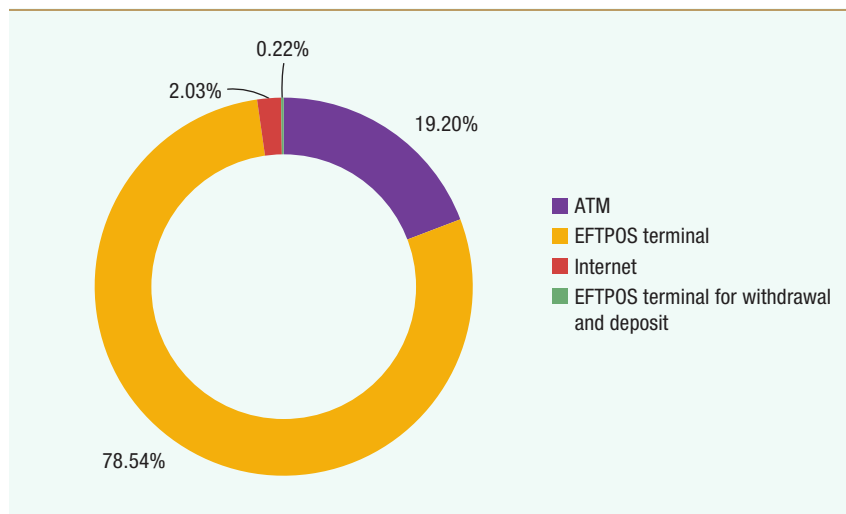
This chapter shows statistical data on the number and value of transactions of the acquiring of payment transactions executed using payment cards issued outside the RC, i.e. of foreign issuers.

In 2018, 55.94 million transactions of the acquiring of payment transactions executed using payment cards of foreign issuers, with a total value of HRK 31,693.67 million, were executed using payment cards of foreign issuers. In 2018, the total number of the transactions of acquiring of payment transactions executed using payment cards of foreign issuers increased by 18.89%, and their value increased by 12.74% from 2017.

In the first three months of 2018, the value of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers on average stood at HRK 644.47 million. An upward trend was noticeable until August, when it reached the level of HRK 7,945.96 million, starting to decline in September. In December 2018, the value of the transactions of acquiring of payment transactions executed using payment cards of foreign issuers stood at HRK 756.24 million (Figure 26).

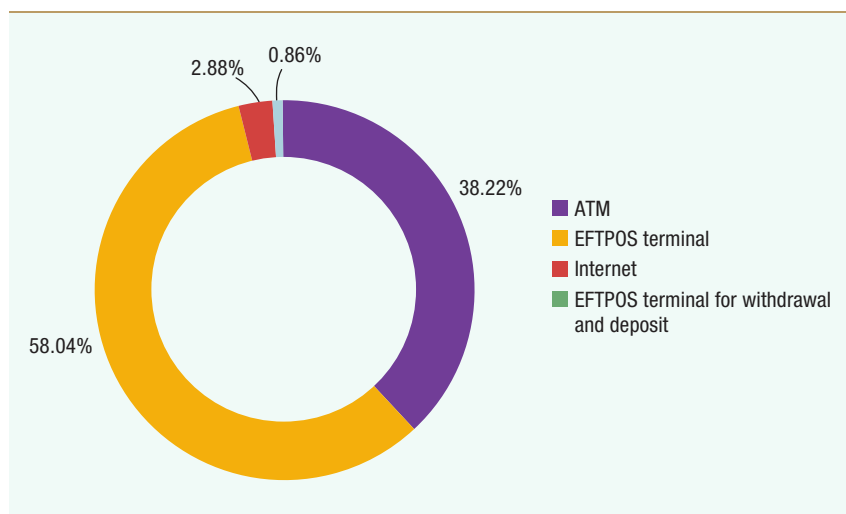
Also, from an overview of the value of acquiring transactions it is evident that the holders of payment cards issued abroad used both ATMs and EFTPOS terminals equally, with the remark that three times as many acquiring transactions were executed through EFTPOS terminals as through ATMs (Figures 26 and 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 2018.
Source: CNB.

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 2018.
Source: CNB.

Of all transactions of the acquiring of payment transactions executed using payment cards of foreign issuers in 2018:

- **through ATMs:** 10.74 million transactions were acquired, with a total value of HRK 12,113.86 million;
- **through EFTPOS terminals:** 43.94 million transactions were acquired, with a total value of HRK 18,395.22 million;
- **through the Internet:** 1.14 million transactions were acquired, with a total value of HRK 911.77 million;

- **through EFTPOS terminals for withdrawal and deposit:** 0.12 million transactions were acquired, with a total value of HRK 272.82 million.

The acquiring of payment transactions executed with payment cards of foreign issuers experienced the greatest growth in 2018 over 2017 in the area of transactions executed over the Internet, increasing in number of transactions by 32.6% and in value by 41.28%.

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

- **through EFTPOS terminals:** HRK 419;
- **through the Internet:** HRK 802;
- **through ATMs:** HRK 1,128; and

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	8,097	41,870,638	1,074,693	42,953,428	
		Cash withdrawals	10,605,213	665		121,223	10,727,101
	Value of transactions	Purchases of goods and services	711,590	17,144,649,865	811,758,096		17,957,119,551
		Cash withdrawals	11,934,779,989	279,200		261,748,636	12,196,807,825
NON-CONSUMER	Number of transactions	Purchases of goods and services	214	2,068,734	61,471		2,130,419
		Cash withdrawals	128,861	18		3,685	132,564
	Value of transactions	Purchases of goods and services	24,588	1,250,290,185	100,008,756		1,350,323,529
		Cash withdrawals	178,345,200	5,050		11,070,605	189,420,855
Total number of transactions	Purchases of goods and services	8,311	43,939,372	1,136,164	0	45,083,847	
	Cash withdrawals	10,734,074	683	0	124,908	10,859,665	
	Total	10,742,385	43,940,055	1,136,164	124,908	55,943,512	
Total value of transactions	Purchases of goods and services	736,178	18,394,940,050	911,766,852	0	19,307,443,080	
	Cash withdrawals	12,113,125,189	284,250	0	272,819,241	12,386,228,680	
	Total	12,113,861,367	18,395,224,300	911,766,852	272,819,241	31,693,671,760	

Note: Data refer to the total number and value of transactions of the acquiring of payment cards of foreign issuers in 2018.
Source: CNB.

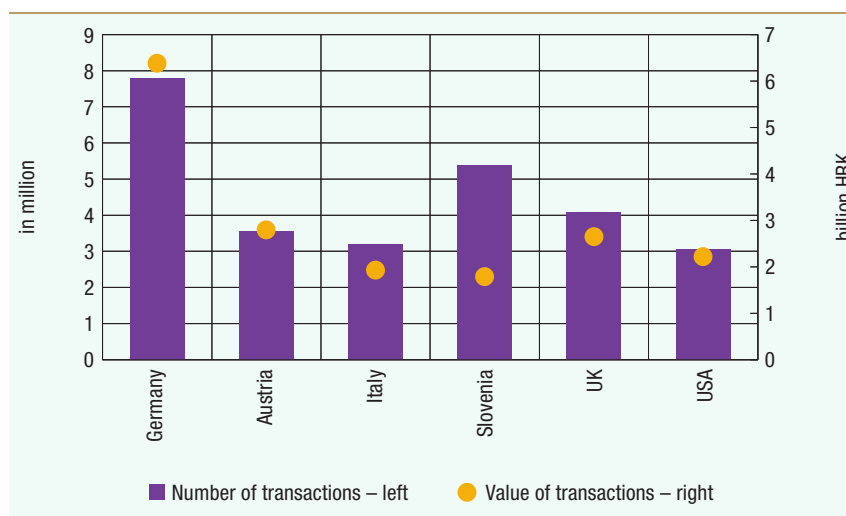
- **through EFTPOS terminals for withdrawal and deposit: HRK 2,184.**

In 2018, in all 45.08 million (81%) 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 19,307.44 million (61%), and 10.86 million (19%) transactions of the acquiring of payment transactions of cash withdrawals, executed using payment cards, with a total value of HRK 12,386.07 million (39%).

In 2018, acquiring transactions executed with the use of payment cards of foreign issuers from a total of 194 countries were recorded. The acquiring of payment cards issued in the six most represented countries (Germany, Austria, Italy, the United Kingdom, Slovenia and the United States), accounted for 9.92% of the total number of transactions of the acquiring of payment transactions executed using payment cards of foreign issuers and for 55.99% of the total value of transactions of the acquiring of payment cards of foreign issuers.

As can be seen, only one of the six countries mentioned is a non-EU country, i.e. the United States. In 2018, the total number of acquiring transactions, executed using payment cards issued in the United States, stood at 3.05 million, worth a total of HRK 2,218.97 million. In 2018, of the six countries, the largest value of transactions of the acquiring of payment transactions executed using payment cards was executed by payment cards issued in Germany, standing at HRK 6,377.28 million. In consequence, in the six countries the largest average value by card transaction in the amount of HRK 818 was generated using German issuers' cards, and the smallest using 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 six 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.

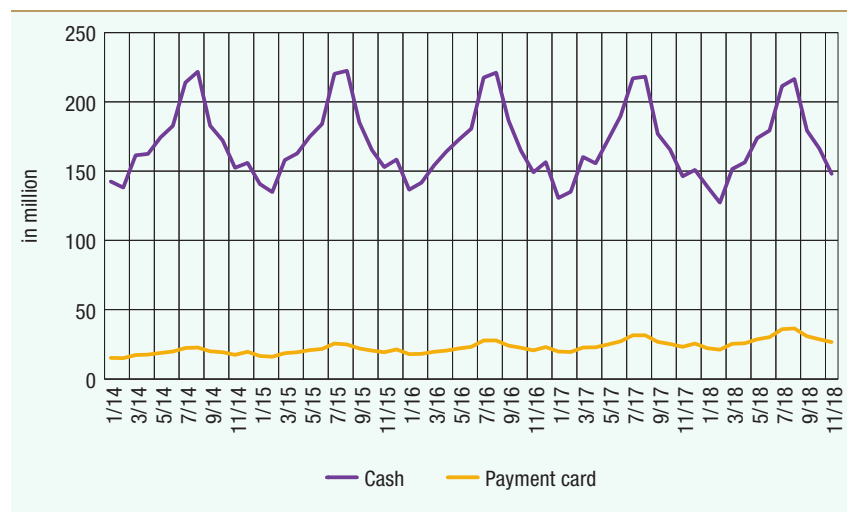
5.2 Comparison of the use of payment cards and of cash

It can be seen from the data shown that the obligors of fiscalisation⁹ issued a total of 2,363.33 million invoices in 2018, with a total value of HRK 184,081.47 million. In addition, of the total number of issued invoices, 84.50% of them were paid in cash, 14.41% by payment cards and 1.09% by other means (through transaction accounts, cheques, etc.). Of the total value of invoices issued, 54.32% refers to cash payments, 41.68% to payment by payment cards and 4% to payment by other means.

In 2018, the total number and value of invoices issued increased from 2017 by 0.78% and 7.98%, respectively.

Figures 29 and 30 give a comparative presentation of the number and value of invoices issued that were paid in cash in the RC and the number and value of card-based payment transactions of the purchase of goods or services executed using the payment cards of Croatian and foreign issuers. The presentation shows that cash as a means of payment is also considerably more represented than payment cards in the number and value of transactions in 2018. However, in 2018, relative to 2017, the number of invoices paid in cash declined by 1.07%, while the value of invoices paid in cash increased by 4.63%. In addition, in 2018, relative to 2017, the value and number of card-based payment transactions of

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

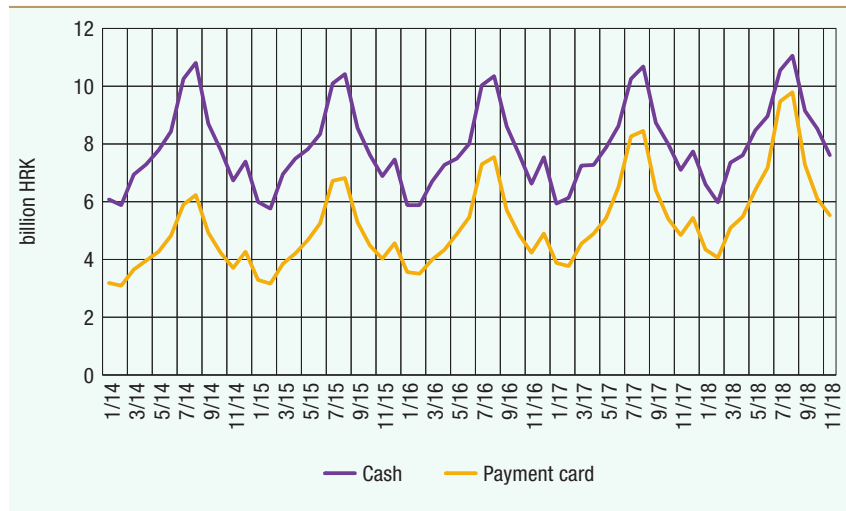


Notes: Data refer to the total number during a single reporting period. Data for cash refer to the total number of invoices paid in cash. Data for payment cards refer to the total number of card-based payment transactions of the purchase of goods or services using Croatian and foreign cards.

Sources: Ministry of Finance of the RC – Tax Administration and CNB.

⁹ According to the data of the Ministry of Finance of the RC – Tax Administration, collected based on the Cash Transaction Fiscalisation Act (Official Gazette 133/2012).

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



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

Sources: Ministry of Finance of the RC – Tax Administration and CNB.

the purchase of goods or services executed using the payment cards of Croatian and foreign issuers increased by 13.12% and 13.17%, respectively.

The average value of a cash payment transaction in 2018 stood at HRK 50, and the average value of a national card-based payment transaction stood at HRK 225.

6 Glossary

- **‘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.
- **‘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.
- **‘Card-based payment transaction’** means a service based on a payment card acquiring infrastructure and card scheme business rules to make a payment transaction by means of a debit or a credit card.
- **‘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 a payment account holder. 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.
- **‘Card-based payment instrument’** means each payment instrument, including the card, mobile phone, computer or any other technological device with an appropriate payment application, enabling the payer to initiate card-based payment transactions other than credit transfers or direct debits referred to in Article 2 of Regulation (EU) No 260/2012 of the European Parliament and of the Council of 14 March 2012 establishing technical and business requirements for credit transfers and direct debits in euro and amending Regulation (EC) No 924/2009 (OJ L 94, 30.3.2012).
- **‘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 with 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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