

NBP

Narodowy Bank Polski

December 2020

Polish Payment System Oversight Report for 2019



December 2020

Polish Payment System Oversight Report for 2019

Prepared by:
Supervision Analysis Division
Payment Systems Department

Authors:
Katarzyna Baran
Paulina Boguta
Mateusz Dzicher
Anna Kalinowska-Piech
Katarzyna Maskalan
Michał Popiołek

Published by:
Narodowy Bank Polski
00-919 Warszawa
ul. Świętokrzyska 11/21
www.nbp.pl

© Copyright Narodowy Bank Polski 2020

Table of contents

| | |
|--|----|
| Summary | 4 |
| Chapter 1. Oversight in Poland | 6 |
| 1.1 Legal conditions | 6 |
| 1.2. NBP oversight policy | 6 |
| 1.3. Scope of payment system oversight in Poland | 8 |
| 1.4. Oversight tools | 10 |
| Chapter 2. Payment system oversight | 12 |
| 2.1 Payments systems | 12 |
| 2.2. Payment schemes | 15 |
| 2.3. Securities clearing and settlement systems | 19 |
| 2.4. Provision of the <i>acquiring</i> service | 22 |
| 2.5. Summary of the functioning of the payment systems | 22 |
| Index of abbreviations | 24 |

Summary

Polish Payment System Oversight Report for 2019 (hereinafter referred to as the *Report*) was prepared in connection with the task related to the payment system oversight carried out by Narodowy Bank Polski.

The *Report* is based on data and information provided to NBP under the national law and on the basis of publicly available data and information on supervised payment systems, payment schemes and securities clearing and settlement systems.

In the case of entities providing the *acquiring* service, data and information from quarterly reports of the Polish Financial Supervision Authority Office (hereinafter referred to as the “UKNF”), i.e. *Information on the situation of National Payment Institutions (NPIs) and Offices of Payment Services (OPSs)* was used.

The most important oversight activities and events in 2019 include:

1. Participating in the process of authorising KDPW S.A. as a central securities depository within the meaning of EU law – conducting a comprehensive assessment of compliance of the securities settlement system with the EU standards, i.e. *Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories, amending Directives 98/26/EC and 2014/65/EU and Regulation (EU) No. 236/2012* (hereinafter referred to as the CSDR).
2. Analysing the documentation concerning the extension of the activities of KDPW_CCP S.A. to the clearing and settlement of greenhouse gas emission allowance sales transactions (EUA/EUAA), including conducting the explanatory proceedings and participation in the work of the supervisory college.
3. Assessing the new Rules of KDPW setting out the rules for the functioning of the depository and settlement system, adapted to EU requirements (including conducting the explanatory proceedings).
4. Granting the authorisation of the President of NBP to First Data Polska S.A. to introduce amendments in the payment system of Krajowy System Rozliczeń (hereinafter referred to as KSR) resulting from recommendations formulated on the basis of a prior cross-sectional assessment of this system.
5. Issuing the decision of the President of NBP on verification of changes related to the development of innovative payment system services and the BLIK payment scheme:
 - performing P2P-R transactions initiated by the recipient (request for payment),
 - extending the catalogue of entities eligible to participate in the system by small payment institutions,
 - enabling the use of the split payment mechanism.

6. Verifying the compliance of the rules for the functioning of the Diners Club, Visa Europe and Mastercard card schemes with EU requirements concerning the obligation to ensure the independence in terms of accounting, organisation and decision-making processes.
7. Assessing the mPay payment scheme in terms of security, efficiency and compliance with the provisions of law and authorising its functioning.
8. Conducting surveys concerning the level of cyber resilience of the most important Polish payment system infrastructures (SORBNET2 and SKARBNET4 systems operated by NBP; Elixir and Euro Elixir systems operated by Krajowa Izba Rozliczeniowa S.A.; settlement systems operated by KDPW_CCP S.A. and the settlement system operated by KDPW S.A.¹).
9. Authorising the increase the limit of contactless payments without using the PIN code for Diners Club cards.
10. Issuing the decision of the President of NBP on termination by KIR S.A. of operation of the Inkart payment system.²
11. Adopting by NBP Management Board the updated document entitled “*Narodowy Bank Polski payment system oversight policy*” taking into account the recent guidelines of the European Central Bank (hereinafter referred to as the ECB) resulting from the document entitled CROE - *Cyber resilience oversight expectations for financial market infrastructures*, ECB, December 2018.

¹ The survey concerning the level of cyber security resilience of the systems operated by the GK KDPW companies was conducted in cooperation with the Polish Financial Supervision Authority Office.

² The operation of the Inkart system was formally terminated on 30 June 2019.

Chapter 1

Oversight in Poland

1.1 Legal conditions

The oversight was performed by NBP within the following legal framework:

- *Act of 24 August 2001 on Settlement Finality in Payment and Securities Settlement Systems and the Rules of Oversight of these Systems*³ (hereinafter referred to as the “Settlement Finality Act”) - in relation to payment systems (exclusive oversight of the President of NBP);
- *Act of 29 July 2005 on Trading in Financial Instruments*⁴ (hereinafter referred to as the “Financial Instruments Trading Act”) – in particular, in relation to securities clearing systems and securities settlement systems (the oversight encompassing cooperation with the principal supervision authority, i.e. The Polish Financial Supervision Authority (hereinafter referred to as the KNF) and implemented, among others, by issuing opinions by the President of NBP at the request of the Chairperson of the KNF);
- *Act of 19 August 2011 on Payment Services*⁵ (hereinafter referred to as the “Payment Services Act”) – in relation to payment schemes (exclusive oversight by the President of NBP) and the acquiring services (the oversight encompassing cooperation with the principal supervision authority, i.e. The KNF, performed through issuing opinions by the President of NBP at the request of the Chairperson of the KNF);
- regulations issued by the Minister of Finance and Development,⁶ defining the detailed scope of documents and data submitted to NBP by entities operating supervised systems and schemes.

1.2. NBP oversight policy

NBP activities in the scope of oversight in 2019 were carried out pursuant to the document adopted by NBP Management Board entitled *Narodowy Bank Polski payment system oversight policy*⁷ (hereinafter referred to as the “Policy”). In accordance with it, the primary objectives of the oversight exercised by NBP President comprise mainly:

³ Journal of Laws of 2019, item 145, as amended.

⁴ Journal of Laws of 2019, item 2286, as amended.

⁵ Journal of Laws of 2017, item 2003, as amended.

⁶ They include the following implementing acts of the Minister of Development and Finance: Regulation of 8 May 2017 on providing data and information by entities operating securities depositories, registration systems of financial instruments other than securities and settlement systems (Journal of Laws of 2017, item 948), Regulation of 10 May 2017 on the functioning of a payment scheme (Journal of Laws of 2017, item 995) and Regulation of 17 May 2017 on the functioning of the payment system (Journal of Laws of 2017 item 1060).

⁷ On 24 October 2019, NBP Management Board adopted the third updated document entitled *Narodowy Bank Polski payment system oversight policy* – https://www.nbp.pl/en/system_platniczy/payment-system-oversight-policy-Oct-2019.pdf. The first version of the Policy was adopted by NBP Management Board in 2015, the successive version - in 2017.

- ensuring efficient and safe functioning of the payment system;
- ensuring compliance of overseen services and systems functioning rules with the provisions of law.

In pursuing its policy in the scope of payment system oversight, NBP is guided by the principle of transparency, developed on the basis of the Polish law as well as uses the best international practices. Therefore, in addition to the *Guidance on cyber resilience in financial market infrastructures*, CPMI-IOSCO, June 2016, being part of the *Policy* since 2017, on 24 October 2019 a new document was introduced as a complementary guideline to strengthen the level of cyber resilience of overseen payment systems, entitled *CROE - Cyber resilience oversight expectations for financial market infrastructures*, ECB, December 2018. The CROE is a set of oversight requirements developed by the ECB, based on internationally recognised standards concerning cyber security as an important issue to be assessed and taken into account in the oversight activities of central banks.

Pursuant to Article 16 of the Settlement Finality Act, since 1 January 2002, the President of NBP has been exercising oversight of payment systems. In connection with that, the operation of a payment system, except for systems operated by NBP, requires the authorisation of the President of NBP. The authorisation of the President of NBP is also necessary to introduce changes in the rules of the functioning of payment systems.

Pursuant to Article 14(2) of the Payment Services Act, since 8 February 2017, the President of NBP has been overseeing the functioning of payment schemes in the territory of the Republic of Poland (there are two types of payment schemes: the four-party⁸ and the three-party⁹ schemes). Therefore, the operation of a payment scheme, with the exception of three-party payment schemes and schemes subject to the oversight of another EU Member State authority or an EU body, requires the authorisation of the President of NBP. The authorisation of the President of NBP is also required to introduce amendments in the rules of functioning of a payment scheme.

Pursuant to Article 48(16), Article 50(2), Article 66(2), Article 68a(5), Article 68b(1) and Article 68d(3) of the Financial Instruments Trading Act, since 21 October 2009, the President of NBP has been participating in the oversight of entities operating securities clearing systems exercised by the KNF. On the other hand, pursuant to Article 48(16), Article 50(2), Article 68a(5), Article 68b(1) of the Financial Instruments Trading Act, since 21 October 2009, the President of NBP has been participating in the oversight of entities operating securities settlement systems exercised by the KNF. The role of the President of NBP in this

⁸ In the four-party payment scheme, the payment organisation does not carry out activities of the issuer or the clearing agent but entrusts them to other payment service providers. Operation of a four-party payment scheme requires the authorisation of the President of NBP. An exception are so-called EU schemes which are bound to submit, among others, a copy of the relevant document confirming that the assessment of the payment scheme operating rules was performed. However, where a four-party EU scheme plans to introduce changes to the operating rules of the scheme related to the Polish market, the authorisation of the President of NBP is required.

⁹ In the three-party payment scheme, issuance of payment instruments and their acceptance is the sole competence of the payment organisation operating the payment scheme. Due to the provision of the acquiring service, such payment organisation is an NPI, therefore, it is subject to the KNF oversight and must obtain the KNF authorisation to operate. In connection with the foregoing, the operation of a three-party payment scheme does not require the authorisation of the President of NBP.

scope is auxiliary and consists in assessment of the functioning of the systems in terms of efficiency, security and compliance with law as well as preparing opinions in this scope for the competent authority.¹⁰

Pursuant to Article 60(3) of the Payment Services Act, since 7 October 2013, the President of NBP has been participating in the oversight of national payment institutions providing the *acquiring* service exercised by the KNF. In connection with the foregoing, issuing the authorisation by the KNF to conduct activity in the capacity of the national payment institution, comprising the provision of the aforementioned service, requires applying for the opinion of the President of NBP.

1.3. Scope of payment system oversight in Poland

Both the structure of the payment system in Poland itself and the model of exercising the oversight are extensive and demonstrate a significant level of complexity.

In 2019, the following systems and schemes operated:

- 2 large-value payment systems,
- 7 retail payment systems, including 2 instant payment systems,
- 10 payment schemes, including 4 card schemes,
- 5 securities clearing and settlement systems,
- 25 national payment institutions (NPIs) holding the authorisation of the KNF to provide the *acquiring* service.

The oversight of the financial market infrastructure in Poland is exercised in a complementary manner by two authorities:

- the Polish Financial Supervision Authority,
- the President of Narodowy Bank Polski.

The KNF exercises supervision over entities from the banking sector, capital market, market of payment services, sector of credit unions, insurance market, pension market as well as lending and credit intermediation institutions. On the other hand, the President of NBP exercises oversight of payment systems and payment schemes and cooperates in assessing of the functioning of (consisting in issuing opinions at the request of the KNF) the securities clearing and settlement systems and the provision of the *acquiring* service by payment institutions supervised by the KNF.

¹⁰ An exception is the SKARBNET4 system operated by NBP, which is not subject to the oversight exercised by the KNF. The oversight of the SKARBNET4 system is exercised by NBP pursuant to the provisions of the currently binding Policy.

The exercise of the oversight is important in view of the structure of the payment system and, above all, the links between individual elements of the payment system infrastructure that enable the flow of money in the economy, therefore it relates to the functioning of:

- payment systems:
 - large-value payment systems: SORBNET2 and TARGET2-NBP operated by NBP;¹¹
 - retail systems: Elixir, Euro Elixir, Express Elixir and Inkart,¹² operated by Krajowa Izba Rozliczeniowa S.A. (hereinafter referred to as KIR), the BlueCash payment system (hereafter referred to as BlueCash), operated by Blue Media S.A., the BLIK Payment System (hereinafter referred to as: BLIK system), operated by Polski Standard Płatności Sp. z o.o. (hereinafter referred to asPSP) and Krajowy System Rozliczeń (KSR) operated by First Data Polska S.A.;
- payment schemes:
 - operating as payment card systems, i.e.: Visa Europe, Mastercard, American Express and Diners Club;
 - other payment schemes, i.e.: BLIK Payment Scheme (hereinafter referred to as BLIK scheme) operated by Polski Standard Płatności Sp. z o.o., YetiPay operated by YetiPay Sp. z o.o, mPay operated by mPay S.A., SkyCash operated by SkyCash Poland S.A., Smoopay operated by Planet Pay Sp. z o.o. and PeoPay¹³ operated by Bank Pekao S.A.;
- securities clearing systems operated by KDPW_CCP S.A., securities settlement systems operated by Krajowy Depozyt Papierów Wartościowych S.A. (KDPW S.A.), the IRGiT SRF securities clearing and settlement system, operated by Izba Rozliczeniowa Giełd Towarowych S.A. (hereinafter referred to as: IRGiT S.A.), and the securities settlement system SKARBNET4, owned and operated by NBP;
- provision of the acquiring service by NPIs¹⁴, duly authorised by the Polish Financial Supervision Authority (in 2017-2019, authorisations were granted to Conotoxia Sp. z o.o., Paymento Financial S.A., mElements S.A.).

The functioning of two large-value payment systems is typical of certain EU countries that do not belong to the euro area – one system processing payment orders in the national currency, the other one processing payment orders in euro, forming a TARGET2 component. Poland also has a retail payment system dedicated to payments in euro – Euro Elixir. However, Poland distinguishes strongly against the EU countries in terms of the number of retail

¹¹ The TARGET2-NBP system is operated by NBP as regards legal issues and as regards its operational issues by three central banks (Deutsche Bundesbank, Banque de France and Banca d'Italia), like TARGET2.

¹² The operation of the Inkart system was formally terminated on 30 June 2019.

¹³ The PeoPay scheme was removed from the list of schemes supervised by the President of NBP on 17 June 2019 due to the liquidation of the supported payment instrument and its operation only as a mobile application.

¹⁴ The NPI means a legal person which acquired a licence for operating as a payment institution, defined in Article 2(16) of the Act of 19 August 2011 on Payment Services (Journal of Laws 2017, item 2003, as amended). Acquiring, on the other hand, means the payment service provided by national payment institutions as defined in Article 3(1)(5) of that Act.

payment systems in operation (6), since in 2019 the EU average number of retail payment systems per country was 1.7.¹⁵ It should also be emphasised that two instant retail payment systems have been in operation in Poland for eight years, while many countries do not have such a solution or have at most one such a system.

The number of non-card payment schemes operating in Poland is also significant (6 entities overseen by the President of NBP¹⁶). On the other hand, in the area of card schemes, the entire Polish market is divided between four international schemes with global coverage, two of which (Visa Europe and Mastercard) accounted for over 99% of the market in 2019, both in terms of the number and the value of executed transactions. The share of the other two schemes (Diners Club and American Express) in 2017-2019 did not exceed 0.2%.

In the scope of the capital market, securities clearing and settlement systems operate in Poland through which transactions in two currencies - the zloty and the euro - are handled. Moreover, depository activity is conducted in two settlement systems simultaneously (in the system operated by KDPW S.A. and in SKARBNET4).

Exercising the oversight by NBP in the context of such an extensive payment system, requires the application of clear and transparent rules of cooperation with the operators of supervised systems and schemes along with the KNF, as the institution supervising operators of securities clearing and settlement systems and entities providing the *acquiring* service.

1.4. Oversight tools

The oversight of the payment system is exercised with the use of a broad range of oversight tools described in the *Policy*. The tools available to the President of NBP include, among others, issuing authorisations (in the form of decisions) to operate a payment system or a payment scheme and to introduce amendments in the rules for their functioning.

In the scope related to the supervision of securities clearing and settlement systems and the provision of the acquiring service, one of the tools available to the President of NBP is the issuance of opinions for the KNF (in the form of decisions). The amendments to the rules for the functioning of the aforementioned systems require the KNF to obtain the opinion of the President of NBP. On the other hand, in the scope of the *acquiring* service, the President of NBP issues, at the request of the Chair of the KNF, opinions on provisions of the *acquiring* service by entities applying for the KNF authorisation to operate as the NIP.

Both when issuing the authorisations and issuing opinions on applications addressed to the KNF, the criteria for assessing the rules for the functioning of the systems and schemes, planned changes in this respect and the manner of providing the acquiring service include ensuring the compliance with the provisions of law and efficient and safe functioning of systems and schemes and provision of the *acquiring* service.

The oversight also entails obtaining information regarding the current operations of overseen systems and schemes, assessing these operations and undertaking tasks with a view

¹⁵ Own calculations based on ECB data: <https://sdw.ecb.europa.eu/reports.do?node=1000002752>

¹⁶ Including the PeoPay scheme, which was deleted from the list of supervised schemes on 17 June 2019.

to introducing necessary amendments in the functioning of the aforementioned systems, schemes and the provision of the *acquiring* service. In addition to the information gathering and assessment of the functioning of the systems as well as the provision of the *acquiring* service already mentioned above, other tools enabling the correct performance of the system oversight function include:

- quantitative data monitoring and analysis,
- clarifying incidents occurring in payment systems and payment schemes,
- ongoing cooperation with entities operating payment systems and payment schemes or providing the *acquiring* service.

Moreover, as part of other current oversight activities, representatives of NBP actively participated in activities organised by the ECB, the European Commission (hereinafter referred to as the EC) and the oversight initiatives of the central banks of the European Union, and take part in the work of the following committees and groups:

- *Market Infrastructure and Payments Committee (MIPC)*,
- *Payment and Securities Oversight Working Group (PSOWG)*,
- *Analytical Working Group (AWG)*,
- *Cyber Resilience Strategy Task Force (CR TF)*, including the *Cyber Resilience Oversight Expectations* team;
- *Governmental Expert Group on the Interchange Fee Regulation (GEG IFR)*,
- *European Forum on the Security of Retail Payments (SecuRe Pay)*,
- *Visa Assessment Group* (a group of central banks coordinated by the ECB),
- *MasterCard Europe (MCE) Assessment Group* (a group of central banks coordinated by the National Bank of Belgium as the direct supervisor of Mastercard Europe).

Chapter 2

Payment system oversight

2.1 Payments systems

Payment systems are legal relationships, governed by the Polish law, between at least three institutions,¹⁷ with common rules, applicable to the participants, for performing clearing or execution of their settlement orders¹⁸ (orders by a participant to transfer a sum of money to the account of a recipient with a settlement agent or other orders which give rise to the execution or discharge of a monetary obligation, in accordance with the rules of the payment system).

Source: Article 1(1) and (12)(a) of the Settlement Finality Act.

2.1.1. Large-value payment systems

In 2019, two large-value payment systems were in operation in Poland:

- the SORBNET2 system, operated by NBP, where the settlement of transactions in PLN is performed;
- the TARGET2-NBP system, managed by NBP as regards legal issues and by three central banks (Deutsche Bundesbank, Banque de France and Banca d'Italia) as regards the operational side,¹⁹ where the settlement of transactions in EUR is performed.

Oversight activities related to large-value payment systems

In 2019, a survey was conducted concerning the identification of critical participants of the SORBNET2 system. In addition, the resilience of the SORBNET2 model to the occurrence of extreme market conditions was examined (stress tests). The results of simulations performed on the basis of three different scenarios demonstrated its high resilience to the assumptions adopted in the study.

In addition, in connection with the need for a comprehensive risk identification to properly assess the security of the financial market infrastructure functioning, including large-value

¹⁷ In accordance with Article 1(1) and 5(a-d) of the Settlement Finality Act, at least one of the following institutions must be a participant: Narodowy Bank Polski, the central Bank of another state, a domestic bank or a branch of a foreign bank, an investment firm, a foreign legal entity or a public authority body.

¹⁸ A slightly different, broader definition of the payment system is included in Article 2(27) of the Payment Services Act, pursuant to which payment systems constitute systems of fund transfers based on formal and standardised rules as well as common principles related to processing, clearing or settlement of payment transactions. For the purpose of payment system oversight the definition specified in the Settlement Finality Act is applied.

¹⁹ The functioning of the TARGET2 system is based on the Single Shared Platform (SSP), developed by three EU central banks, namely the central banks of France, Germany and Italy.

payment systems, a second survey was conducted between 17 September 2019 and the end of 2019 concerning the cyber resilience of the SORBNET2 system. In the first edition of the survey, conducted in 2018, SORBNET2 was classified as “Profile 2 – Progressive Model”.²⁰ Based on the results of the second survey, the SORBNET2 system was again classified as “Profile 2 – Progressive Model”.

Incidents in large-value payment systems

In 2019, five incidents were recorded in large-value payment systems. However, those incidents were not critical to the functioning of the payment systems in Poland. The reasons of these incidents can be divided into three groups: hardware failure, software error and human error. Measures undertaken by the system operator in connection with the aforementioned incidents were assessed as adequate.

Analysis of statistical data related to large-value payment systems

Large-value payment systems occupy a primary place in terms of the value of orders processed in the payment system.

In 2019, the total number of orders processed in large-value payment systems, SORBNET2 and TARGET2-NBP, amounted to 6.1 million and rose by almost 204.2 thousand compared to 2018 (i.e. 3.6%). The total value of orders executed in both systems exceeded PLN 87.4 trillion and rose by PLN 2.7 trillion (i.e. 3.2%) compared to the previous year.

2.1.2. Retail payment systems

In 2019, the following retail payment systems operated in Poland:

- Elixir;
- Euro Elixir;
- Express Elixir;
- Inkart²¹;
- BlueCash;
- System BLIK;
- KSR.

In 2019, payment system oversight activities focused on analysis and issuing opinions on amendments in the rules for the functioning of the systems proposed by operators as well

²⁰ The profiles are contained in the range 1 – 10, where 1 is the highest level of cyber resilience and 10 is the lowest level.

²¹ The Inkart System ended its operation as of 30 June 2019.

as on ongoing monitoring of the functioning of the payment systems, including incident analysis.

Decisions of the President of NBP concerning retail payment systems

In 2019, as part of the oversight of retail payment systems, the President of NBP issued six decisions on introduced amendments in the rules for the functioning of the following systems: Elixir (3 decisions), the KSR (1 decision) and the BLIK system (2 decisions) as well as one decision declaring the expiry of the decision concerning the Inkart payment system.

Other oversight activities related to retail payment systems

In 2019, the second edition of the cyber resilience survey of a systemically important payment system, i.e. The Elixir system, was conducted. In order to carry out the survey, a system self-assessment questionnaire was provided to the Elixir system operator. In the first edition of the survey conducted in 2018, Elixir was classified as “Profile 2 – Progressive Model”.²² Based on the second study performed, the Elixir system was assigned “Profile 1 - the Highest”. All the recommendations formulated after the first survey were found to have been implemented and no new recommendations were defined.

On 21 November 2019, NBP initiated for the first time a survey on the cyber resilience of an important retail payment system, i.e. The Euro Elixir system. Based on the study performed, the Euro Elixir system was assigned “Profile 2 – the Progressive Model”.

Incidents in retail payment systems

In 2019, a total of nine incidents were recorded in five payment systems. However, those incidents were not critical to the functioning of the payment systems in Poland. The reasons of those incidents can be divided into five groups: equipment failures, human factor, network connection problems, software error and other. Measures undertaken by system operators in connection with the aforementioned incidents were assessed as adequate.

Analysis of statistical data related to retail payment systems

In terms of the number of executed payment orders, retail payment systems play a key role in the payment system ensuring clearing of low-value client transactions, i.e. those with the value usually below PLN 1 million.

Assuming the number of orders executed in a given system as a criterion for assessing the significance of individual retail payment systems for the proper functioning of the payment systems in Poland, for many years, as well as in 2019, the Elixir system has dominated, accounting for 85.0% of all payment orders processed in the framework of retail payment systems.

The Euro Elixir system has been recognised as a prominently important system since it is the only retail system where orders are processed in a currency other than the zloty, i.e. in

²² The profiles are contained in the range 1 – 10, where 1 is the highest level of cyber resilience and 10 is the lowest level.

euro. However, the number of orders executed in it remains relatively low - in 2019 only 1.7% of retail payment orders were executed in Poland in this system (in 2018 this percentage was 1.6%, and in 2017 - 1.4%).

Among retail payment systems, instant payment systems, i.e. Express Elixir²³ and BlueCash²⁴ represent a specific group. A characteristic feature of instant payments is that the recipient's account is credited within seconds. Instant payments represent a retail payment segment belonging, besides mobile payments, to the most rapidly developing part of the payment market. Nevertheless, despite the steadily growing popularity of these systems, their share in the number of all retail payments is still insignificant and it amounted to 1.7% in 2019, whereas in terms of value their share was 0.9% (1.0% and 0.9% in 2018 and 0,5% and 0,7% in 2017, respectively).

In all retail payment systems in zloty, the total of 2.2 billion orders with the value of PLN 5.7 trillion were executed (in 2018, it was 2.0 billion orders and PLN 5.3 trillion, respectively, which represents a year-on-year increase of 10.3% in relation to the number and 7.8% in relation to the value of orders as well as an increase of 17.1% and 19.6% compared to 2017, respectively). Elixir and Express Elixir systems processed jointly 87.6% of all orders on the retail payment market, whereas taking into account the value of transactions, these systems accounted for 99.1% of all retail orders. At the same time, compared to 2018, both the volume and the value of orders processed by those systems increased by 5.0% and 7.6%, respectively.

2.2. Payment schemes

Payment scheme is a set of rules concerning the execution of payment transactions, issuance and acceptance of payment instruments by payment service providers and processing of payment transactions with the use of payment instruments and the payment card scheme.

Source: Article 2(26a) of the Payment Services Act.

In 2019, the following payment schemes operated in Poland:

- payment schemes being payment card systems:
 - Visa Europe,
 - Mastercard,
 - American Express,
 - Diners Club;

²³ The Express Elixir system was launched in the first half of 2012 by KIR S.A. and was the first instant payment system launched in Poland and the second one operating in the territory of the EU (following the British Faster Payment Service system launched in 2008).

²⁴ The BlueCash payment system was launched in the second half of 2012 by Blue Media S.A. and was the second instant payment system operating in Poland.

- other payment schemes:
 - BLIK Payment Scheme,
 - YetiPay,
 - mPay,
 - SkyCash,
 - Smoopay,
 - Peopay²⁵

In 2019, the ongoing oversight activities carried out in relation to payment schemes consisted mainly in performing the assessments, issuing decisions on amendments to their rules for the functioning, monitoring their proper operation and collecting and analysing statistical data.

Decisions of the President of NBP concerning payment schemes

As part of oversight activities in 2019, seven decisions of the President of NBP were issued, including:

- one decision concerning the authorisation to operate the mPay payment scheme;
- six decisions concerning amendments to the rules for the functioning of payment schemes, i.e. Diners Club (3 decisions), BLIK scheme (2 decisions), SkyCash (1 decision).

Other supervisory activities concerning payment schemes

In 2019, the EC started the process of collecting and analysing data on the impact of implementation of Regulation (EU) 2015/751 of the European Parliament and of the Council of 29 April 2015 on interchange fees for card-based payment transactions (hereinafter referred to as the MIF Regulation)²⁶ on participants of card payment market across the European Union.²⁷ An external audit firm (EY) was engaged to conduct the survey in all EU Member States. The EY report formed the basis for the preparation of a comprehensive report on the implementation of the MIF Regulation, which the EC presented to the European Parliament on 29 June 2020. The conclusions of the survey indicated a high level of implementation of the provisions of the MIF Regulation in the Member States, the resulting real reduction in interchange fees and its beneficial impact on the costs of handling card payments for merchants.

²⁵ The PeoPay scheme was removed from the list of schemes supervised by the President of NBP on 17 June 2019 due to the liquidation of the supported payment instrument and since it operates only as a mobile application.

²⁶ The MIF Regulation has been applicable across the European Union since 2015.

²⁷ NBP representatives participate in meetings of the Government Expert Group on the Interchange Fee Regulation organised by the EC since 2016. The group associates representatives of institutions responsible for the implementation and monitoring of the application of the MIF Regulation in individual Member States.

Moreover, a comprehensive assessment of the rules for the functioning of the Diners Club card scheme²⁸ was carried out in NBP and the assessment of the Visa Europe and Mastercard payment card schemes was commenced in terms of compliance of their rules for the functioning with the relevant EU regulations²⁹, i.e. The requirements related to ensuring that payment card schemes and entities handling transactions³⁰ are independent in terms of accounting, organisation and decision-making process.

In addition, on the basis of the notification of 18 October 2019 to the organisation operating the Visa Europe payment scheme, the assessment of global changes in the rules for the functioning of the Visa Europe payment scheme was performed, consisting in the introduction of lower tolerance thresholds for fraudulent transactions and the introduction of fees for issuers and acquirers for the violation of risk management rules.

Moreover, in 2019 NBP monitored the work on the adjustment of payment schemes to the requirements of *Commission Delegated Regulation (UE) 2018/389 of 27 November 2017 supplementing Directive (EU) 2015/2366 of the European Parliament and of the Council with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication* (SCA RTS). The Regulation is the EU implementing act to PSD2,³¹ concerning the security requirements for payment service providers, in particular in the scope of execution of payment transactions. It defined what standards should be met by the methods used to initiate a transaction or access the account, in the light of the requirement to use the two-component strong customer authentication (SCA). Pursuant to the SCA RTS, strong customer authentication means the use of at least two elements belonging to the following categories:

- “what I know” - something known to the user only (e.g. password, PIN code),
- “what I have” - something possessed by the user only (e.g. payment card, token, smartphone application),
- “who I am” - user inherent features (e.g. biometric features - fingerprints, iris pattern).

As a result of NBP activities, it was found, among others, that:

- card organisations have taken steps to adjust online payments to authentication methods compliant with the new requirements;

²⁸ The assessment was completed by issuing the authorisation to introduce changes to the rules of the functioning of the Diners Club scheme, consisting in separating the part dealing with handling transactions within the four-party activity of the Diners Club payment scheme from the part dealing with managing the scheme.

²⁹ Regulation 2015/751 and Commission Delegated Regulation (EU) 2018/72 of 4 October 2017 supplementing Regulation (EU) 2015/751 of the European Parliament and of the Council on interchange fees for card-based payment transactions with regard to regulatory technical standards establishing the requirements to be complied with by payment card schemes and processing entities to ensure the application of independence requirements in terms of accounting, organisation and decision-making process.

³⁰ In accordance with the framework assessment schedule of the Visa Europe and Mastercard payment card schemes, this assessment should be completed by 30 September 2020.

³¹ Directive of the European Parliament and the Council (EU) 2015/2366 of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No. 1093/2010, and repealing Directive 2007/64/EC.

- the problem of the lack of adjustment to the SCA RTS requirements relates primarily to payment service providers (card issuers and terminal providers), rather than card organisations.

Incidents concerning payment schemes

In 2019, five incidents were reported in payment schemes (card and other schemes). However, those incidents were not critical to the functioning of the payment systems in Poland. The reasons of those incidents included: hardware and network failures, software errors and, in one case, a cyber-attack targeted at the scheme operator's servers was reported. Measures undertaken by organisations operating individual payment schemes were assessed as adequate.

Analysis of statistical data concerning payment schemes

At the end of 2019, there were 43.0 million payment cards issued in Poland (against 41.2 million cards at the end of 2018, an increase of 4.4% and against 39.1 million at the end of 2017, an increase of 10.0%). Two payment organisations, i.e. Visa Europe Ltd. and Mastercard Europe S.A., dominated the market of payment cards and cards with their logos jointly constituted 99.2% of all payment cards in Poland. The share of cards with the American Express and Diners Club logos accounted jointly for approx. 0.2%. Apart from cards issued by payment card schemes, issuers' own cards are also used on the Polish market (however, they represented only about 0.6% of all cards issued in Poland).

In all payment schemes (card and other), in 2019 as compared to previous years,³² a visible increase was recorded in both the volume and the value of executed transactions, respectively to the level of 5.2 billion transactions (an increase of 22.9%, from 4.3 billion in 2018 and 48.2% compared to 2017) and PLN 437.9 billion (an increase of 19.5%, from PLN 366.4 billion in 2018 and simultaneously an increase of 35.1% compared to 2017). The high level of growth in payment card transactions partly results from the increase in the number of issued payment cards as well as the changing payment habits of Poles and the increasing number of entities accepting payment cards, including making such a method of payment available in new market areas, so far dominated by cash payments (such as the police, the state administration, churches).

In other payment schemes in 2019, in total, 228.5 million transactions with the value of PLN 27.9 billion were processed, which means an increase of 108.7% and 129.5%, respectively, in relation to 2018 (and an increase of 390% and 488%, respectively as compared to 2017). In 2019, the largest payment scheme in this category, taking into account both the value of executed transactions and their volume, was the BLIK Payment Scheme (PLN 27.7 billion and 205.8 million transactions, representing, respectively, 99.1% of the total value and 90.1% of the total number of executed transactions in all other schemes), followed, however, with a much lower share, by the SkyCash scheme (0.8% of the total value and 8.6% of the number of executed transactions in all other schemes).

³² The presented data refer to the following types of transactions: domestic, made with payment instruments issued in Poland, executed in Poland, processed and settled in payment schemes (including payment card schemes). The data exclude payment card transactions settled within a single financial institution ("on-us" type transactions).

In accordance with Article 132zq(3) of the Payment Services Act, Article 3 and Article 4 of Regulation 2015/751, a four-party card organisation or an organisation recognised as a four-party card organisation provides NBP with quarterly information required to check the accuracy of application of the *interchange* fee level. Accordingly, NBP analysed the level of *interchange* fees charged in 2017-2019 by individual card organisations, broken down into debit cards and credit cards. As a result of the analysis, NBP did not find any irregularities in the scope of application of the *interchange* fees by those schemes, i.e. their value did not exceed the statutory limit of 0.2% for debit cards and 0.3% for credit cards (issued to individual clients).

2.3. Securities clearing and settlement systems

Securities settlement systems are legal relationships governed by Polish law between at least three institutions³³ in the framework of which common rules for clearing or execution of settlement orders apply in transactions concluded in financial instrument trading, including derivatives (participant's orders related to the transfer of securities by means of relevant entries in the securities registers maintained or otherwise).

Source: Article 1(2) and (12)(b) of the Settlement Finality Act.

In 2019, the following securities clearing systems and securities settlement systems operated on the Polish market:

- SKARBNET4 System for registration of NBP money bills and Treasury bills (SKARBNET4);
- the clearing system of transactions concluded in financial instrument trading operated by KDPW S.A.;
- the clearing system operated by KDPW_CCP S.A. for transactions in financial instruments pursuant to Rules of Transaction Clearing (organised trading);
- the clearing system operated by KDPW_CCP S.A. for transactions in financial instruments pursuant to Rules of Transaction Clearing (non-organised trading);
- the securities clearing and settlement system of financial instruments operated by Izba Rozliczeniowa Giełd Towarowych S.A. (IRGiT SRF).

The oversight activities in 2019, as in previous years, involved assessment of the functioning of the systems, issuing opinions on the amendments to their rules for the functioning, monitoring of the functioning of these systems and the analysis of quantitative data as well as recorded incidents.

³³ Within the meaning of the Trading in Financial Instruments Act, at least one of those institutions which are participants of the payment system or the securities settlement system and which are responsible for the fulfilment of the obligations stemming from the execution of settlement orders in the system should be: NBP, the central bank of another state, a domestic bank, a branch of a foreign bank, a credit institution or its branch, an investment company or a public authority.

Decisions of the President of NBP concerning securities clearing systems and securities settlement systems

In 2019, at the request of the KNF, the President of NBP issued 10 opinions in the form of decisions: four opinions related to the introduced amendments to the KDPW_CCP rules for the functioning, five opinions concerned amendments to the KDPW rules for the functioning and one opinion on the characteristics of the securities settlement system operated by KDPW S.A. issued in connection with the authorisation of KDPW S.A. under the authorisation procedure provided in the CSDR.

Other oversight activities regarding securities clearing systems and securities settlement systems

In the area of capital market oversight, NBP is a member of the international supervisory college established for KDPW_CCP S.A. and composed of representatives of the UKNF, NBP and selected members of supervisory authorities from other EU Member States³⁴ and the European Securities and Markets Authority (ESMA).³⁵ In 2019, an important part of the work of the college was to evaluate the extension of the activities of KDPW_CCP S.A. to the clearing and settlement of sale transactions in greenhouse gas emission allowances (EUA/EUAA).

With regard to SKARBNET4, in 2019, NBP, as the central bank exercising oversight which covers both systems operated by external entities and its own systems,³⁶ continued the assessment (initiated in December 2018) of the implementation of recommendations and guidelines for the SKARBNET4 system contained in the final report entitled *Assessment of the SKARBNET4 system in terms of compliance with the provisions of the CSDR*.³⁷ The assessment showed a positive status of implementation of the recommendations adopted for the SKARBNET4 system in the final report on the system assessment. In addition, it was found that no significant changes had occurred in the functioning of the SKARBNET4 system which could have had a significant impact on the compliance of this system with the provisions of the CSDR.

Considering the importance of risk in the scope of assessment of the security of the functioning of the financial market infrastructure, including securities clearing and securities settlement systems, in 2019 NBP initiated the second edition of the survey on resilience of cyber security for the SKARBNET4 securities settlement system and, in agreement with the KNF, the survey on the securities settlement system operated by KDPW S.A. and the securities clearing systems operated by KDPW_CCP S.A. In the first edition of the survey on cyber resilience conducted in 2018, all clearing and settlement systems were classified as “Profile 2 – Progressive Model”.³⁸ Based on the results of the second survey, the SKARBNET4 system

³⁴ The supervisors from France (AMF) and Belgium (NBB) and the European Central Bank.

³⁵ The rules concerning establishment of the college arise from the provisions of EMIR.

³⁶ In accordance with the Policy adopted by NBP Management Board, in the process of exercising the oversight in relation to the systems that NBP operates or influences through ownership powers, NBP applied as appropriate the same criteria and requirements as for other supervised systems. Deviations from the application of the same criteria and requirements may only result from the monetary policy pursued by NBP and the tasks related to liquidity management. They may only relate to issues associated with the governance, credit risks, collaterals, general business risk and requirements concerning defining the rules for access and participation in the system.

³⁷ The report was adopted by NBP Management Board on 1 March 2018.

³⁸ The profiles are contained in the range 1 - 10, where 1 is the highest level of cyber resilience and 10 is the lowest level.

and the systems operated by KDPW S.A. and KDPW_CCP S.A. were also assigned “Profile 2 – Progressive Model”.

Incidents in the securities clearing systems and securities settlement systems

In 2019, four incidents were recorded in the securities clearing systems and securities settlement systems. However, those incidents were not critical to the functioning of the payment systems in Poland. The reasons of those incidents included: hardware and network failures, software errors and other technical problems.

Analysis of statistical data concerning securities clearing systems and securities settlement systems

The statistics indicate that in 2019, as in the previous year, the number of operations in the area of securities clearing and settlement showed a downward trend, whereas their value showed a slight increase.

In 2019, in the SKARBNET4 system, 0.28 thousand settlement operations for transactions in NBP bills were performed (against the total of 0.36 thousand in 2018; a decline of 22.2% on the 2018 figure and, at the same time, 56.9% down on the 2017 figure) with the total value of PLN 660.2 billion (as compared to the total of PLN 626.1 billion in 2018; an increase of 5.5% on the 2018 figure and 29.3% on the 2017 figure).

In 2019, in the settlement system operated by KDPW S.A., the total of 5.6 million settlement operations were conducted for transactions concluded on the organised market (compared to 6.8 million in 2018; a 17.7% decline compared to 2018 and a 34.1% decline compared to 2017) with the total value of PLN 597.9 billion (against PLN 610.5 billion in 2018; a 2.1% decline compared to 2018 and a 35.5% decline compared to 2017). On the other hand, on the non-organised market, the total of 1.03 million transaction settlement operations were conducted (against 0.93 million in 2018; a 10.8% increase compared to 2018 and a 9.6% increase compared to 2017) with the total value of PLN 12.0 billion (against PLN 11.3 billion in 2018; a 6.5% increase compared to 2018 and a 3.1% increase compared to 2017).

In 2019, the total number of transactions cleared in the systems operated by KDPW_CCP S.A. for transactions in financial instruments amounted to 22.0 million transactions in financial instruments admitted to trading on the organised market (compared to 22.4 million in 2018; a 1.9% decline compared to 2018 and a 8.7% decline compared to 2017) with the total value of PLN 389.1 billion (compared to PLN 432.4 billion in 2018; a 10.0% decline from 2018 and a 17.1% decline from 2017) and 2.0 thousand transactions in financial instruments traded in the OTC market (compared to 1.5 thousand transactions in 2018; a 33.3% increase from 2018 and a 81.8% increase from 2017), with the total value of PLN 227.1 billion (compared to PLN 159.8 billion in 2018; a 42.1% increase from 2018 and a 68.2% increase from 2017).

In 2019, as in all years since 2010, i.e. since IRGiT S.A. obtained the permission to operate a clearing house, no financial transactions were processed in the IRGiT SRF system, i.e. no transactions were concluded that the clearing house could clear.

2.4. Provision of the *acquiring* service

Provision of the *acquiring* service means a payment service facilitating the execution of payment transactions, initiated by the merchant or through it, using the payer's payment instrument, with the exception of activities entailing clearing and settlement of the payment transaction in the payment system, within the meaning of the Settlement Finality Act. The service consists of processing the authorisation, transferring the payer's or merchant's payment orders to the payment card issuer or payment systems, with the aim of transferring the due funds to the merchant.

Source: Article 3(5) of the Payment Services Act.

Decisions of the President of NBP concerning the provision of the acquiring service

The oversight of the provision of the *acquiring* service by the President of NBP consists mainly of issuing opinions (in the form of decisions), on request of the KNF, in relation to entities intending to offer such service under their licence of the NPI.

In 2019, the President of NBP issued one decision concerning the entity called mElements S.A.

Analysis of statistical data related to provision of the acquiring service

As at the end of 2019, the total number of entities holding the KNF's licence to operate as the NPI amounted to 38, whereas the number of NPIs holding the authorisation to provide the *acquiring* service amounted to 25 and it did not change compared to the status at the end of the previous year. Moreover, at the end of 2019, 46 Small Payment Institutions³⁹ (SPIs) were entered in the register of payment services, 22 of which had a possibility to provide the *acquiring* service.

In 2019, the value of transactions executed within the *acquiring* service amounted to PLN 159.2 billion, whereas the number of transactions reached 1.9 billion. As compared with 2018, the value of transactions increased by PLN 35.2 billion (i.e. 28.3%) whereas their number - by 351 million transactions (i.e. 23.3%). Whereas compared to 2017, the increases amounted to 64.1% and 60.7%, respectively.

2.5. Summary of the functioning of the payment systems

In 2019, the Polish payment systems functioned properly, ensuring the efficient and safe processing of clearing and settlement transactions.

³⁹ As of 20 June 2019, the Payment Services Act was amended by introducing a new category of entities, i.e. small payment institutions (SPIs) which, after obtaining an entry in the register of payment service providers kept by the KNF may provide payment services, within the scope and under the rules specified in the Act.

The systems, schemes and services constituting the payment systems in Poland overseen by the President of NBP operated in a stable manner and the nature and intensity of potential risks to its stability did not change significantly in relation to the previous year.

According to NBP's assessment, measures undertaken by systems' operators and payment schemes' operators were adequate and ensured the efficient and safe functioning of the payment systems. This also applies to the fulfilment of information obligations towards NBP by those entities.

Index of abbreviations

| | |
|---------------|--|
| AWG | Analytical Working Group |
| CCP | Central Counterparty, i.e. The entity which becomes the sole buyer for all sellers and the sole seller for all buyers |
| CPMI | Committee on Payments and Market Infrastructures |
| CROE | <i>Cyber resilience oversight expectations for financial market infrastructures</i> , ECB |
| CSD | Central Securities Depository |
| CSDR | <i>The Central Securities Depositories Regulation</i> – Regulation (EU) No. 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories and amending Directives 98/26/EC and 2014/65/EU and Regulation (EU) No 236/2012 |
| EC | European Commission |
| ECB | European Central Bank |
| EMIR | <i>European Market Infrastructure Regulation</i> – Regulation (EU) No. 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories |
| ESMA | European Securities and Markets Authority |
| EU | European Union |
| EUR | euro |
| GEG IFR | Governmental Expert Group on the Interchange Fee Regulation to the European Commission |
| GK KDPW | The KDPW Capital Group; the group is formed by KDPW S.A. and KDPW_CCP S.A. |
| IOSCO | International Organization of Securities Commissions |
| IRGiT S.A. | Izba Rozliczeniowa Giełd Towarowych S.A. |
| IRGiT SRF | the securities clearing and settlement system of financial instruments operated by IRGiT S.A. |
| KDPW S.A. | Krajowy Depozyt Papierów Wartościowych S.A.; it is a part of the GK KDPW |
| KDPW_CCP S.A. | a clearing house pursuing activity in the scope of clearing of transactions concluded on the domestic financial market, with the status of Central Counterparty (CCP); a part of GK KDPW |

| | |
|-------------|--|
| NPI | National Payment Institution |
| KIR SA | Krajowa Izba Rozliczeniowa SA |
| KNF | Polish Financial Supervision Authority |
| KSR | Krajowy System Rozliczeń - a retail payment system operated by First Data Polska S.A. |
| MIPC | Market Infrastructure and Payments Committee at the ECB |
| NBP | Narodowy Bank Polski |
| OPS | Office of Payment Services |
| PFMIs | <i>Principles for Financial Market Infrastructures</i> |
| PIRPS | Prominently Important Retail Payment System |
| POS | Point of Sale |
| PSD2 | <i>Payment Service Directive</i> – Directive 2015/2366 of the European Parliament and of the Council of Europe (EU) of 25 November 2015 on payment services in the internal market |
| PSOWG | Payment and Securities Oversight Working Group within the MIPC |
| PSP | Polski Standard Płatności sp. z o.o. |
| RTGS | Real-Time Gross Settlement |
| RTS | Regulatory Technical Standards - the Implementing Regulation |
| SCA | Strong Customer Authentication |
| SKARBNET4 | securities settlement system operated by NBP, functioning since 13 April 2015 |
| SORBNET2 | Polish RTGS system for payments in PLN, functioning since 10 June 2013 |
| SPI | Small Payment Institution |
| SSP | Single Shared Platform - common technology platform of TARGET2 |
| TARGET2 | Trans-European Automated Real-Time Gross Settlement Express Transfer System |
| TARGET2-NBP | Polish component of the TARGET2 system |
| UKNF | Polish Financial Supervision Authority Office |

www.nbp.pl

