

# 1. ISSUANCE AND ACCEPTANCE OF CONTACTLESS PAYMENT CARDS

## 1.1. Contactless cards in Poland

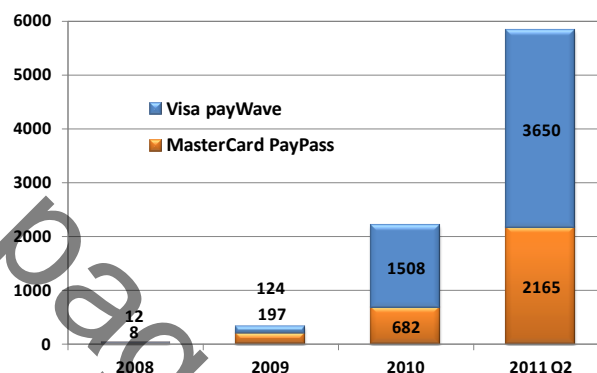
The first contactless cards were launched onto the Polish market in December 2007 by Bank Zachodni WBK SA (BZ WBK) which issued – in cooperation with the MasterCard organization – the Maestro *PayPass* pre-paid contactless payment card in the form of bearer electronic money. Throughout 2008, BZ WBK remained the only bank offering contactless instruments to its clients and in April that year it expanded its offer to include the MasterCard *PayPass* credit card. In October 2008, the bank also issued the first Visa *payWave* contactless card (Visa Electron <30 debit card) and by the end of the year, it released a total of 19.5 thousand contactless cards, including more than five thousand Maestro *PayPass* cards (pre-paid cards), 2.5 thousand MasterCard *PayPass* cards (credit cards) and 12 thousand Visa *payWave* cards (debit cards).

In 2009, as many as five new issuers of contactless cards entered the Polish contactless payments market. In March, ING Bank Śląski became the second bank to issue contactless cards (Maestro *PayPass* debit cards) in the country, which sparked off their widespread distribution. The third institution to launch contactless cards was the newly established Alior Bank that released Debit MasterCard *PayPass* cards in June 2009. By the end of the year, mBank, Multibank, and Polbank EFG also became active on the Polish contactless market.

Although 2009 was the first year in which contactless cards were issued on a large scale, the contactless technology covered less than 1% of payment cards functioning on the Polish market in terms of the number of cards issued (Figure 2). Nevertheless, that year saw a breakthrough as clients became more aware of the new technology. One of the major factors that contributed to raising client awareness was the market launch of payment gadgets

(MasterCard *PayPass*), such as contactless stickers, key fobs, and watches.<sup>1</sup> Those solutions were an important innovation on the Polish market and attracted interest from the media. Owing to this, despite the small number of instruments issued, gadgets paved the way for contactless cards.

Figure 1. Number of contactless cards on the Polish market by payment organizations (in thousands).



Source: Estimates of POLASIK Research on the basis of data obtained from card issuers.

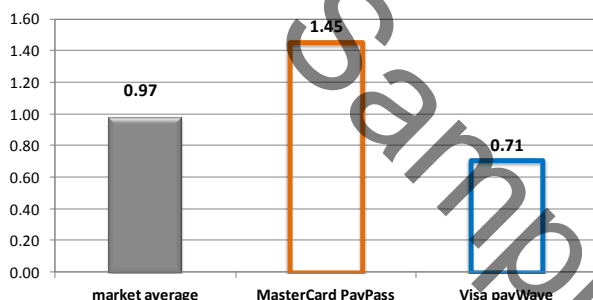
On the other hand, a major breakthrough on the Polish contactless payments market was 2010 when the number of contactless cards surged from 321 thousand to 2.2 million (Figure 1). For the most part, this resulted from the implementation of contactless payments by the largest Polish bank, PKO BP SA, which began to issue Visa *payWave* contactless cards as basic debit cards for all owners of checking and savings accounts as of September 2010. Within four months more than one million such cards were issued. By the end of 2010, several dozen more banks began to issue contactless cards and the total number of issuers reached 19

<sup>1</sup> For more information see: Polasik M., Starogarska E., Kunkowski J. and Maciejewski K. (2011), *The Global Contactless Payment Cards Market. Development, Opportunities and Perspectives*. POLASIK Research, Report, February, <http://www.polasik-research.com>.

Polish contactless payments market in 2011. Issuance, Transactions, Innovations.

may be considered a success, taking into account the fact that the activity of Polish card holders is still relatively small (when compared to the entire market), the scope of acceptance of contactless cards is limited, and the clients still have to familiarize themselves with the new technology. When analyzing the activity related to the usage of contactless cards in more detail, it should be noted that at the time the ratio of the number of contactless transactions per one card was 1.45 for MasterCard *PayPass* and 0.71 for VISA *payWave* (Figure 7).

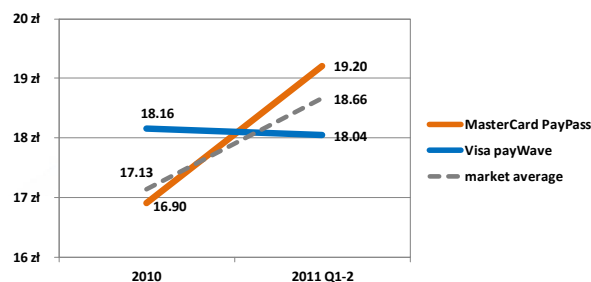
Figure 7. Average number of contactless transactions per one card in mid-2011.



Source: Estimates of POLASIK Research on the basis of data obtained from 14 banks and 5 acquirers. The parameters were estimated for transactions carried out in the first half of 2011 and based on the estimated average annual number of contactless cards of the given organization.

Due to the simultaneous rapid increase in the number of POS terminals accepting contactless transactions and in the number of payment cards issued, the results of the analysis of the scope of using these terminals seem very interesting (Figure 9). In 2010, an average of 43.3 transactions were concluded quarterly on one POS terminal, of which 35.4 were transactions with MasterCard *PayPass* and 7.8 transactions with Visa *payWave*. In the first half of 2011, the intensity of using POS terminals accepting contactless transactions increased significantly, with an average of almost 90 transactions conducted per quarter (47.8 for MasterCard *PayPass* and 41.9 for VISA *payWave*). This increase in the intensity of using the infrastructure occurred along with its intensive development, thus proving the large scale of this phenomenon.

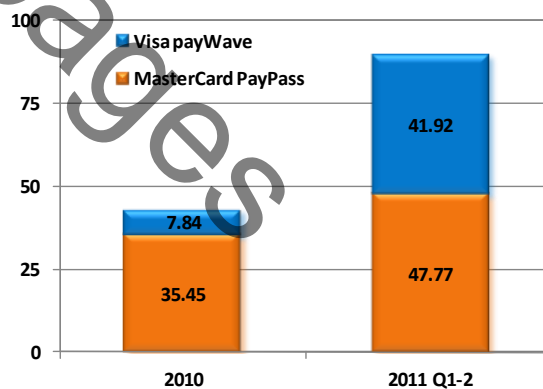
Figure 8. Average value of one contactless transaction.



Source: Estimates of POLASIK Research on the basis of data obtained from 14 banks and 5 acquirers. The data were based on the estimated average annual number of contactless cards of a given organization.

The average value of contactless transactions demonstrated a slight upward trend (Figure 8). In 2010, it was PLN 17.13 per one transaction, while in the first half of 2011 it amounted for PLN 18.66. However, it should be remembered that the developing acceptance network includes both public transport where clients make payments of even less than PLN 2 and large shopping chains where the typical shopping cart is significantly greater than the limit for a contactless transaction which does not require PIN and which has been set at PLN 50 in Poland.

Figure 9. Average number of contactless transactions conducted quarterly per one POS terminal.



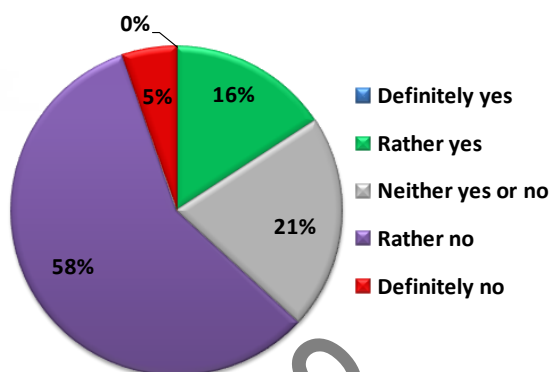
Source: Estimates of POLASIK Research on the basis of data obtained from 14 banks and 5 acquirers. The parameters were estimated for the transactions carried out in the first half of 2011. For the purpose of comparability, they were transformed into average quarterly data for those periods and based on the estimated average annual number of POS terminals accepting contactless transactions.

2.2. Value of transactions

The value of contactless transactions concluded on the Polish market between 2010 and 2011 was the function of the number of transactions and their average value (Figure 10).

Polish contactless payments market in 2011. Issuance, Transactions, Innovations.

Figure 17. Do you believe that by the end of 2011 the infrastructure of POS terminals accepting contactless payments will achieve such a level of development as to allow widespread usage of contactless technology?



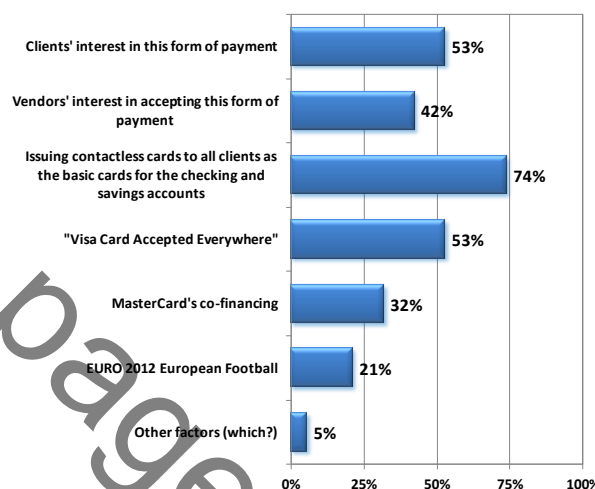
Source: Results of POLASIK Research survey conducted among banks issuing contactless cards and acquirers; N=19.

In the next few years, the rate of development of the network of POS terminals will be determined mostly by the popularization of contactless card ownership, following the issuance of such cards as the basic debit cards for the owners of checking and savings account in certain banks (Figure 18). Indicated by almost 3/4 of the respondents, this factor guarantees a large number of contactless cards on the Polish market, owing to which acquirers can be certain that the contactless technology will develop and the investments in infrastructure development will be justified. Most respondents considered the "Visa Card Accepted Everywhere" program the second key factor to contribute to the development of the Polish acceptance network in 2012. Moreover, one-third of the respondents emphasized the impact of MasterCard's co-financing on the development of the terminals network. Accordingly, it should be acknowledged that the payment organizations' programs constitute a very important incentive for the Polish contactless payments market.

The other important factors mentioned by the respondents included clients' and vendors' interest (Figure 18) which may constitute both a development incentive and a significant barrier for the popularization of contactless payments. Increasing clients' and vendors' interest is a long-term process, requiring educational activities as well as creating favourable financial conditions for those market participants. Contrary to the other factors, decisions made by consumers and vendors do not depend directly on the

strategies executed by banks and they are the most difficult to change. Very few respondents hope that the EURO 2012 European Football Championships will contribute to the development of contactless infrastructure (see Chapter 3.3.). As far as other factors are concerned, the respondents emphasized the necessity to charge a lower interchange fee (IF) for contactless transactions and the need to revise the system of limits on the amounts and the number of such transactions. They also emphasized the expected significant impact of the NFC mobile technology which has the potential to stimulate the development of the entire contactless payments market.

Figure 18. In your opinion, which factors will have the greatest influence on the development of the network of POS terminals accepting contactless transactions in Poland in 2011 and 2012?



Source: Results of POLASIK Research survey conducted among banks issuing contactless cards and acquirers; N=19.

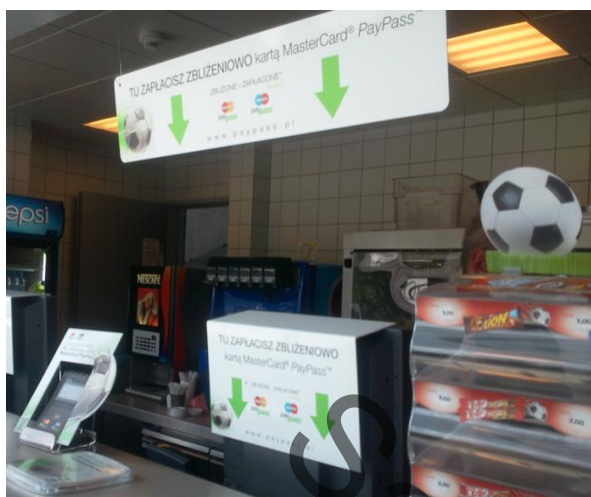
### 3.2. NFC mobile payments

In terms of the NFC mobile contactless technology, the Polish market is considerably less advanced than that of card-based contactless instruments. To this date, there has been no commercial implementation; however, three significant pilot programs were implemented: two with the participation of MasterCard organization and one with the participation of Visa organization.

In May 2010, Inteligo bank, Era mobile telephone network (currently T-Mobile) and MasterCard organization launched consumer tests of mobile payments with the use of mobile phones. 100 respondents - clients of both Inteligo and Era - participated in a four-month long pilot program in which

Polish contactless payments market in 2011. Issuance, Transactions, Innovations.

Figure 22. Terminals accepting contactless transactions at Legia Warszawa stadium.



Source: MasterCard, 2011.

Fan cards are a perfect carrier for contactless payments during sports events. The MasterCard PayPass technology has already been applied in seven fan cards issued by Lech Poznań, Polonia Warszawa, GKS Bełchatów, Lechia Gdańsk, Zagłębie Lublin, Jagiellonia Białystok, and Korona Kielce clubs. So far, the greatest implementation of this type of contactless has been the issuance of 32 thousand MasterCard PayPass pre-paid contactless cards by Gospodarczy Bank Wielkopolski SA in Poznań. The cardholders were the fans of KKS Lech Poznań (Figure 23).

Figure 23. Lech Poznań fan cards with payment module in MasterCard PayPass technology.



Source: MasterCard, 2011.

**Ziemowit Stempin, Director of the Banking Products Department at Gospodarczy Bank Wielkopolski SA in Poznań**

"Owing to the cooperation with the club, we can offer Lech Poznań fans a unique product based on a multi-functional contactless payment card. With the card, the fans can enter the stadium quickly and pay for their small purchases, whereas in the future it will enable holders to conveniently use public transport and city car parks. Today we can say that because of the number of cards issued and combining the functionalities of a stadium card, an urban card and a payment card in one, this product very innovative."

"For example, the time to go through the so-called stadium gates was significantly shortened and this is attributable to (...) the application of the contactless functionality. (...) The card is a fan's identification document both while entering and being at the stadium. Full compliance with security regulations during mass events is ensured. The fan's picture and personal data are shown on the card."

Source: Gospodarczy Bank Wielkopolski SA in Poznań, 2011.

**3.4. Contactless cards in public transport**

In October 2010, First Data Polska in cooperation with Mennica Polska (the Mint of Poland) launched first self-service ticket vending machines with the contactless technology in Wrocław. By February 2011, more than 800 devices had been installed on trams and buses. Wrocław was the first city where passengers could pay a public transport fare cash-free in the vehicle. Before ticket vending machines were installed in vehicles, public transport tickets could be purchased from the tram/ bus driver at an extra charge and only with cash, which resulted in delays in traffic. Owing to the cooperation with Mennica Polska, it was possible to increase the comfort of passengers who now have an opportunity to purchase tickets in a simple, quick, and convenient manner without disturbing the driver. In addition, cash handling costs in public transport were reduced.<sup>10</sup>

<sup>10</sup> Success Story – contactless technology in Wrocław, First Data Polska, press release, 2011.