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## **Development of the Plastic Cards Conversion System in Russia**

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**Abstract:** The article investigates the development of the system of cards circulation in Russia. The authors define the concept of "plastic card", using various classification cards define the essence of payment with this financial instrument, analyze the history of creation and distribution of plastic cards in Russia, assess causes, consequences and prospects of development of the system of cards circulation in Russia.

**Key words:** Plastic cards • Conversion system • Bank • Finance • Payment

## INTRODUCTION

Plastic card is universal payment tool is the key to access the bank account management and allows its owner to pay for goods and services in various retail and service outlets accepting cards, or to use other additional services and certain advantages. Plastic cards are rapidly developing tool of the banking system. They provide real opportunities for improvement is very labor-intensive methods and procedures for the implementation of financial operations. Plastic cards are the first place to demand banking services.

Development of the sphere of plastic cards in our country at this stage, is gaining momentum. Plastic cards are a modern, high-tech media. Wide area of their use, the demand for various types of plastic cards is growing. Plastic cards are a universal tool of any settlements. With the help of plastic cards, you can pay for goods and services, transfer to her wages, they are applied in all spheres of life on the Internet, long-distance communication, medicine, commerce, access control, advertising and entertainment industries [1].

But the market in the Russian Federation is still a market for cash. Maps gained its niche and continues to conquer new peaks, but so far for the rapid growth of which we have been hearing 5-7 years, there is the main base - proper technical equipment and information from the control structures. International system of plastic cards, which originated in the middle of the last century in

the United States, widespread throughout the world and have become an integral part of the infrastructure of the global economy.

Domestic systems of plastic cards currently difficult to resist international competitors, having developed infrastructure and financial resources, not only internationally, but also in the Russian market. At the moment, the domestic market is underdeveloped cards: low proportion of acquiring services in the card operations, the number of cards per inhabitant, slightly, the number of ATMs, cash points and merchants accepting cards for payment, is small compared to Western Europe and North America.

Development of the market of plastic cards also affects features of the banking system of the Russian Federation, which provokes structural imbalances scope of operations with plastic cards.

Essence cards inseparable from the spirit of systems in which they operate. Plastic cards, being in a certain sense the implementation of systems of plastic cards are also a product of evolution last long enough. Feature, allowing the system to turn cards into transnational corporations, is the ability to accumulate funds, forming closed loops cash flows [2]. This property systems cards allows you to create funding for structures that control the system. In practice, it is either to large financial institutions, or on national and regional economies, creating systems using plastic cards possibility of financial investments in their own development.

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The main reason for the rapid spread of plastic cards in virtually all sectors of the economy is the fact that the specific costs associated with the operation systems of plastic cards, up from one-third to half the cost of paper-based systems.

The most active plastic cards used in the banking sector for the implementation of the payment transactions of individuals. The plastic cards are a versatile tool that enables a wide range of payment and other transactions.

In this connection, it is expedient to classify the plastic cards to the following criteria [3]:

- Maps as physical objects;
- Maps as financial instruments;
- Maps as functional space organizational charts;
- Maps as infrastructure elements.

To classifications cards as physical objects include their views:

- Production material;
- Time use:
- Method for recording information on a card.

Production material cards are divided into paper (cardboard), plastic and metal. Its modern form card purchased in 1928, when the company launched production of metal cards. For identification of the card holder is often used paper (cardboard) cards, sealed in a transparent film - laminated cards. However, PET technology is more reliable compared to lamination technology and plastic is more convenient and cheaper than metal, in terms of stamping. Currently ubiquitous plastic cards received. By the time of use of the card is divided into some limited time interval (sometimes with possible extension) and unlimited (undated).

By the method of recording information on a map isolated following activity: graphics card with recording, embossing (mechanical extrusion), bar coding, magnetic stripe, chip on record - intelligent (smart) cards (divided, in turn, on the cards with memory and microprocessor cards, laser writing (optical cards). currently almost all the cards are divided into magnetic stripe cards (older, less reliable, but cheaper and widespread technology) and chip cards (more modern and reliable, but so far less common and relatively expensive technology.

The classification of financial instruments as cards can be attributed to the classification of the account currency, according to which we must distinguish between single currency (ruble, dollar, euro card) and multicurrency. Multicurrency cards differ from the single currency ability to replenish card account different currencies.

When considering the cards as functional locations organizational charts can be classified according to the following criteria:

- From purpose;
- Type brand;
- By payment scheme;
- Use by degree of individuality;
- Prioritized;
- Recruitment services;

As a general purpose isolated identity, information, discount (club, loyalty cards), multifunction cards and cards for financial transactions. By type is necessary to distinguish the brand: co-brand- and monobrend-cards. This classification is implicitly applied in practice only for plastic card systems.

Strictly speaking, in the scientific literature from a variety of professional card is used only to co-branding, i.e. cards that combine multiple systems brands of plastic cards, while others are not designated a special term. The most famous co-branding project in Russia of the 2000s is "Golden Crown –MasterCard". It was produced by the member banks of the Gold Crown, not a member of MasterCard, through the agency of the program "Baltic Bank" (Saint- Petersburg) until the termination of this co-branding program.

One of the most common classifications of plastic cards is their division for the payment scheme. Thus it is possible to allocate credit cards, overdraft and debit cards. Debit Cards - this is essentially a technical means to carry out operations with its own bank account. When issuing its credit card holder is given a credit line, which is used to pay for goods, works and services within the stipulated limit in the loan agreement.

Intermediate position between these schemes occupied cards with overdraft. Such cards are a means of overcoming the "cash gaps" in the flow of cardholder payments: the owner uses it as a debit balance within its own funds on the card account, but in the case of their failure can use credit resources of the bank. Thus, with the help of technologically identical cards can run different and sometimes opposite (use only their own or borrowed funds only) functions.

Classification according to the degree of individuality cards use implies a division of the cards on individual, family, corporate and payroll cards.

Prioritized cards are divided into basic and advanced. Worth considering as the main card issued by the issuer to the owner on the card account. Additional card acts as a "deputy" basic. It is issued on behalf of the representative of the owner of the main card for the management of funds under the same account.

Classification cards recruitment services rendered, divides electronic maps, standard (classic), silver (business card), gold, platinum. By e-cards are VISA Electron (hence the common name for this group of cards) and Cirrus / Maestro Corporation MasterCard. These are the cheapest on the production technology in the magnetic stripe card. These cards are used to implement mass debit schemes - usually payroll. From a marketing standpoint, they are focused on the lowest, most abundant in developing consumer segment. The standard (classical) cards are VISA Classic, EuroCard / MasterCard Classic (Standard), hence the name of the data card. These cards are designed for customers with average incomes and require access to a wider range of services than electronic (is subject to overdraft, can be used to pay for purchases on the Internet). Silver or business card (Silver, Business) designed for business - private entrepreneurs or employees of companies. Most wealthy clients offer gold, platinum and some other types of cards (Gold, Platinum, Infinite). Its holder provides an additional set of services: automatically draws life and health insurance when going abroad, an increase of grace period'a etc. Gold and platinum cards - this is usually the individual credit card with a magnetic strip or chip. Often, they are the club or discount.

To the classification maps as an element of infrastructure should include classification [4]:

- As belonging to the issuing institution;
- Closed by calculations of the issuer;
- On territorial coverage.

In turn, as belonging to the institution issuing distinguish bank cards, financial companies, commercial card and plastic card systems. Closed by calculations on the issuer distinguished bilateral (or private for-profit) and multilateral (or universal) system.

Classification distinguishes the territorial scope of international card systems plastic cards, plastic cards national, regional systems of cards, one card institutions and systems combined cards.

To map the international systems of plastic cards, primarily include Visa International Services Association (VISA) and MasterCard - originally national systems

cards USA. Now they are the absolute leaders in the world market of plastic cards and are accepted in almost all countries of the world. In addition, they are the leaders in the Russian market. In particular, in our country VISA cards are serviced in more than 166 thousand retail outlets and 36 thousand ATMs.

With increased competition in the Russian market of plastic cards, there are various projects to create new systems of plastic cards, the purpose of which is the involvement of individuals in cashless transactions, in particular, the national system of cards. In some countries, national associations of banks have already established national system of plastic cards. These are Goldkarte and e-purse ("electronic wallets") in Germany, Cartes Bancaires in France, COGEBAN (debit card system) and Servizi Interbancari (credit card system) in Italy, JCB in Japan, Proton in Belgium. These cards are mainly used in the territorial boundaries of the respective countries. However, there are some exceptions: for example, Goldkarte appeal not only in Germany but also in France, Austria and Iceland.

Modern trends in the card market consists in the increase of turnover payment systems mainly through the issuance of national banks plastic cards of international organizations for residents. This spectrum of the market develops the most active. The use of plastic cards in the calculations has great advantages over cash. Cardholders are efficiency payments, lack of risk of loss or calculation errors, the ability to earn interest on the balance of funds in bank accounts, ensuring the confidentiality of information stored on the card. For trade: simplicity and efficiency of customer service, reduce the risk of robbery and complexities associated with the collection and storage of cash; efficiency transfer of funds to the account. For banks: the emergence of new sources of income from the funds raised on the card accounts, receive commissions charged on card transactions, increasing the number of customers by providing a new type of service, reduction of maintenance costs of cash flow.

In 2012, the growth rate of issuance of plastic cards decreased by 3.2 % and amounted to 124.9 %. However, the popularity of cards is increasing every year, aided by the dynamic development of infrastructure for acceptance for payment of bank cards and innovations in the field of payment technologies associated with the expansion of the banking services with their use.

For 2012, total issue volume of bank cards totaled 209.4 million units, Which is 41, 8 million units. more than in 2011.

During 2008-2011, the growth rate of bank cards issued were in the range - 105 - 115 %. At the same time with the third quarter of 2009, the trend of increasing the quarterly growth rate of bank cards issued [5].

In the structure of bank cards issued by credit institutions on types of cards, there is the following relationship: just as at 07/01/2013 of credit cards issued 22.4 MU, which is 7.6 MU more than in 2012 on the quarter and 12.4 million units. more than in 2011. Number of payment cards without "overdraft" was 169 MU, which is more than 2012 at 21.1 million units., The number of payment cards with the "overdraft" increases significantly on 07.01.2013, the figure was 31.8 million u, that is more than 2012 on 6mln.ed.

Analyzing the growth in the number of payment cards with an overdraft credit compared to the first quarter were not typical for the Russian card market. Statistics Central Bank over the past few years shows that banks are still substantially higher rates have issued credit cards. Thus, in 2012 the growth rate of credit cards was 149.5 %, which is 32.7 % more than in 2011, the number of payment cards with overdraft - 10% in 2012 and amounted to 115% [6].

Increased growth in the number of payment cards with overdraft market participants attributed to several factors. First - increasing debt load power of the population. Due to the boom in retail lending in the past year the number of people with the potential to sustain growth in credit load has decreased considerably.

In this situation, the credit limit that the bank may approve, for many potential borrowers is greatly reduced. Issuing credit cards with a small limit bank financial unprofitable, as bank charges for account maintenance and tied him your credit card will not be covered too little income for such a product. More profitable and easier to bind also to the existing payment card minimum overdraft.

The desire of banks to save on credit card service, whilst retaining the ability to earn interest on the payment card with an overdraft, not the only factor. Such cards are more profitable and customers. At this stage, customers are more conscious approach to the evaluation of various banking products and understand that placing an overdraft, they do not have to bear the cost of annual maintenance and additional credit card payments to keep track of it. In addition, the interest rate on the overdraft is lower, as the bank has the ability to track the flow of funds to the client's account. Thus, considering the welfare of the population, the number of payroll clients that banks are willing to open the credit limit on payroll card increases.

With the increasing use of bank cards and an increase in issued cards, they become an important means of social and serve not only to non-cash payment, but also serve as a deposit (payroll cards), collection (there is no need in transportation funds), as well as access to an instrument loan account. Thus, in 2012 in Russia were committed by individuals 6,284,640 billion calculations on bank cards (compared to the year 2011 was 38.6 %): 5 152 220 000 000 000 card operations to obtain cash and 1,132,419 billion calculations on payment goods and services with bank cards.

In the analysis of intensive retail lending growth is observed in the card business: for the period from September 1, 2011 to September 1, 2012 the total retail loan portfolio grew by 43.2%, while the credit card portfolio - 83.4%.

Of particular concern is the rapid expansion of commercial banks, recently took the credit card market. For example, SKB-Bank for the period increased its credit card portfolio to 196 times - from 19.3 million to 3.8 billion rubles, Sovcombank - to 24 -fold, from 116.9 million to 2.8 billion rubles.

Among the "Top 5" retail loan market September 1, 2012: Sberbank (119.7 billion rubles, 21.2 % of the market), "Russian Standard" (84.6 billion rubles, 15%), VTB 24 (45.3 billion, 8%), "Orient Express" (38.6 billion rubles, 6.8%) and "Trust" (38.2 billion rubles, 6.8%).

Growth of the market leaders in the retail loan during this period are: Sberbank (71.4 billion rubles, 148 %), the bank "Russian Standard" (34.5 billion rubles, 68.7 %), the bank "Orient Express" (26.8 billion rubles, 228.6 %), TCS (20.1 billion rubles, 111.4 %) and Bank Messenger (19.5 billion rubles, 310.8 %). All of the above banks, excluding Sberbank, is not among the most reliable banks in Russia.

Reduces threat relatively small amount of the total credit card portfolio - by September 1, 2012, it amounted to 8.1 % of the retail loan portfolio. Card credit in the market competition intensifies, leading to lower interest rates and an increase in advertising budgets. Powerful card expansion occurs due to lower requirements for borrowers. As banks compete for borrowers, reducing the time the decision to grant the credit card and the amount of information required, which inevitably leads to a decline in the quality of underwriting. Inexperience banks - beginners credit card may appear in low quality credit assessment of the client. These factors contribute to the decline in the quality of the loan portfolio.

However, even with increased competition, interest rates, fees and penalties by credit card are high. For example, Sberbank cards Visa Classic and MasterCard

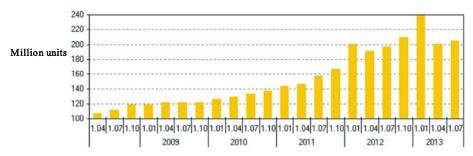


Fig. 1: Number of bank cards issued by credit institutions

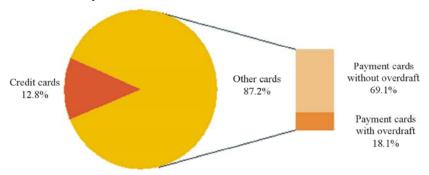


Fig. 2: Structure of bank cards issued by credit card organizations by type

Standard set interest rate of 24% per annum, the annual service - 750 rubles, even with a minimum credit limit of 10 thousand rubles. Thus, the effective interest rate for this limit is not less than 31.5 % per annum. This does not include cash withdrawals - 3 % of the amount in the Savings Bank ATMs and 4% in other banks. Also important sources of income of the bank - penalties: a penalty for late payment of the mandatory payment of 38 % per annum [7].

If underwriting substandard, even high percentages do not compensate for the delay. Moreover, the effect is activated "adverse selection": the higher rate than poorquality and selection procedure liberal borrowers, borrowers and the worse the greater the likelihood of default. For banks with poor underwriting expansion card is a dangerous factor in the development, as in crisis defaults cards become a mass phenomenon. Giving an example, you can specify the causes of the crisis on credit card in South Korea in 2003. First of all borrowers cease to serve the unsecured loans and only then - provided, such as a mortgage, so it is necessary to reduce the growth of the market credit card.

Due to the increase in use of cashless payments, increased fraud in the market of cashless payments. Of 276,435 economic crimes 58,154 (over 21 %) accounted for fraud, including the use of bank cards.

To date, there is no single answer to the question: "How to protect yourself against fraud with a plastic card?". As a rule, all the tips are as follows: observe some simple safety rules. Some "advanced" banks are already providing service insurance cards against loss and associated risks of fraud. However, according to bank employees, customers are not in a hurry to use the service. The reason is simple: the issue price of the new card in case of loss of the old not much higher fees for insurance. Therefore, many customers do not want to spend extra money on insurance. But it is in the case of fraud with the card would provide a full refund of all the owners of the stolen money.

Thus, the growth of bank cards issued by credit institutions in the Russian market, largely due to growth in the volume of transactions committed by means of transfer. In this regard, the number of frauds committed in this area, but the methods of enhancing the effectiveness of security constantly improving Russian banks.

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