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## **Payment System Competitiveness**

**Key words:** *interchange fee, Tourist Test, cards payment, Direct debit system, information asymmetry*

**Abstract:** Competitiveness is one of the key conditions of a functional market system. With the passage of time, people changed their understanding of economic systems, and switched from barter to paper money. In the contemporary world, when IT becomes a big part of common life, the electronic money, e-purses, pay pall and other payment systems are used more commonly and have become more important. The payment systems differ one from each other and we can talk about payment instruments market. But what if this market does not work well? The aim of this article is to determine the rules and conditions on the market of payment instruments. The author attempts to recognize the problems on the demand and supply sides. The focus here is on the system of credit cards and direct debit system together with the latest theory of the Tourist Test. The Interchange Fee plays the key role.

### **INTRODUCTION**

A company's competitiveness depends directly on its competitive strategy. Competitive strategy may be defined as follows: 'activities and approaches sequence to provide higher probability of success in terms of achieving its goals in its field and moment' (Bartes, 1999, p. 93). It seems to be easier to define the company's competitiveness instead of market competitiveness. But as it is known from theory, there are conditions for perfect competition. It is also known from a theoretical point of view that a human being is trying to get as close as possible to perfect competition but to reach it is impossible. A question arises here – providing a company can be competitive, and meanwhile the market is not - are companies able to cope appropriately with their competitors on a non-competitive market? The author assumes that the necessity for competitive environment is needed as a stepping stone.

The market conditions change regarding the IT development. People left barter exchange and have started to use paper money. But nowadays, while we are entering the information century and 'e-money' is being used more commonly and in many different ways. Not only various forms of e-money are in use but together with the development of IT lots of new other forms of payments being implemented.

In this article the author focuses mostly on e-payments. The market of payment instruments is not easy to define explicitly. Let us we relinquish the geographical segmentation and focus on different payment instruments commonly used by end consumers. These common instruments comprise the following:

- Cash
- Credit transfer
- Payment cards
- Electronic money/e-purses
- Cheques<sup>1</sup>
- Direct Debit system<sup>2</sup> (together with R-transactions<sup>3</sup>).

The author focuses mostly on Payment cards and Direct Debit system. As payment cards is used by end customers personally, the Direct debit is a payment service for debiting a payer's payment account, whereby a payment transaction is initiated by the payee on the basis of the payer's consent which has been given to the payee, to the payee's payment service provider or to the payer's own payment service provider (European Central Bank, 2009).

Banks throughout the Single Euro Payments Area (SEPA) are now gradually starting to deliver SEPA Direct Debit services to their customers. All branches of banks in the euro area must be reachable for SEPA Core Direct Debit by 1<sup>st</sup>

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<sup>1</sup> Cheques are not commonly used in the Czech Republic.

<sup>2</sup> Direct debit scheme is a set of functions, procedures, arrangements, rules and devices that enable an authorized debit of the payer's payment account initiated by the payee, either as a single payment or a series of payments. The oversight framework covers the entire payment cycle, i.e., the initiation phase, the transaction phase and the clearing and settlement phase. It takes into account concerns relating to both the retail payment system and the payment instrument used (European Central Bank, 2009).

<sup>3</sup> R-transactions is the umbrella term for the following terms: Refunds are claims by the payer for reimbursement of contested debits on the account. Refusals are instructions issued by the payer prior to settlement, for whatever reason, to the effect that the payer's PSP should not make a direct debit payment. Reject is the result of a failed transaction whereby the payment has already been declined prior to interbank settlement. Possible causes include technical reasons, closed account, insufficient funds. Returns are direct debit collections that are diverted from normal execution following interbank settlement and are initiated by the payer's PSP. Reversal is initiated by the payee after settlement in the event that a direct debit that has already been paid should not have been processed. Consequently, it is the reimbursement of funds by the payee to the payer. Revocation is the request by the payee to recall the direct debit collection prior to acceptance by the payer's PSP.

November 2010 as mandated by the EU Regulation on cross-border payments in the Community<sup>4</sup>.

These days the European Central Bank provides an overview of the set of tools and instruments that the Euro system employs and underlines the fact that payment instruments are an essential part of payment systems. The risks involved in providing and using payment instruments have not generally been considered to be of systemic concern, but the safety and efficiency of payment instruments are important for both maintaining confidence in the currency and promoting an efficient economy.

SEPA Direct Debit services enable customers – for the first time ever – to make and receive both domestic and cross-border euro direct debit payments throughout the 32 SEPA countries, i.e., the 27 EU Member States, Iceland, Liechtenstein, Norway, Switzerland and Monaco. The direct debit is a major payment instrument widely used in many euro area countries.

SEPA offers significant benefits for bank customers. The implementation of innovative and competitive SEPA payment services based on global ISO standards translates into efficiency gains for businesses and public administrations, while consumers can rely on a single set of euro payment instruments covering 32 countries: one bank account, one bank card, one SEPA Credit Transfer, one SEPA Direct Debit.

## **NETWORK PAYMENT CARDS SYSTEM AND TOURIST TEST**

While paying by cards, there are four different actors involved in the business. First, it is the Issuer bank – the bank which issues the credit card and transfers it to the acquirer bank – the second player in this net system. On the other side of this transaction there is a merchant who has got the POS terminal installed and, finally, the consumer who chooses goods and pays by card.

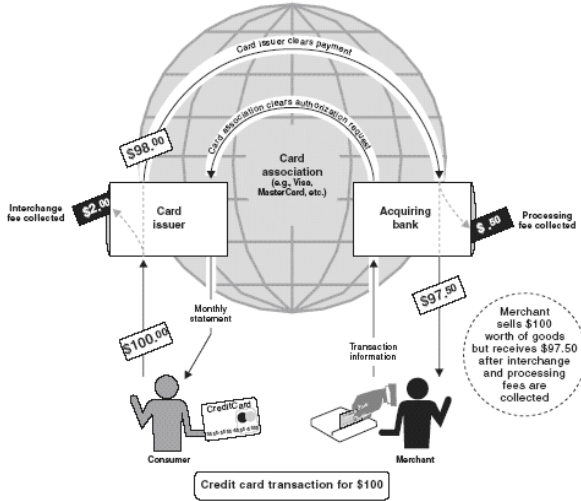
From the end customer's point of view the whole transaction is easy, he/she chooses the good concerning the value together with price of the good and decides to buy it. This is how it should work in a competitive retail market. However, there is an interchange fee. The role of the interchange fee is demonstrated in Figure 1.

The interchange fee (IF) paid by the merchant's bank (acquiring bank) to the cardholder's bank (issuer bank) allocates the total cost of the payment service between the two users, end consumer and merchant; in payment cards systems Visa or MasterCard.

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<sup>4</sup> The European Payments Council (EPC), the coordination and decision-making body of the European banking industry in relation to payments, launches the SEPA Core Direct Debit Scheme and the SEPA Business to Business Direct Debit Scheme on 2<sup>nd</sup> November 2009.

Figure 1. System of Interchange Fee

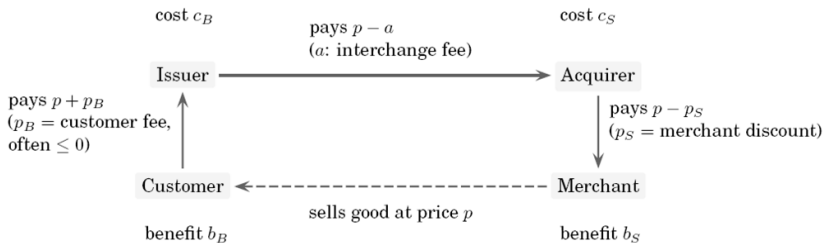


Source: <http://www.gao.gov/new.items/d06929.pdf>, p.74, US Government Accountability Office (GAO), September, 2008.

After findings of competition authorities, courts of justice and banking regulators it has been seen that the IFs are set unacceptably high (See the Discussion part). Due to information asymmetry for end consumer and the existence of net business there do not work competitive rules. What is happening is that merchants have to accept the cards because they do not want to impair their ability to attract customers; cards are ‘must-take cards’.

There has been done many surveys on the potential anticompetitive effects of IFs in antitrust literature, mainly Carlton and Frankel (1995), Evans and Schmalensee (1995), Frankel (1998), Chang and Evans (2000), Balto (2000), Rochet and Tirole (2002), Schmalensee (2002), and Wright (2004). Schemes may exploit this by setting excessive MIFs and this may create rent extraction by banks. In that case payment cards become more costly compared to other payment instruments for merchants.

Figure 2. Fee structure while paying by card



Source: J.C. Rochet, and J. Tirole, (2006), ‘Must-Take Cards and the Tourist Test’, IDEI discussion paper, Toulouse University.

To examine the real competitiveness of the credit card payment in comparison with other payment instruments it is necessary to define truly the costs and benefits (based on the scheme shown in Figure 1). The competitiveness of the card payment instrument has been already established with the use of the Tourist Test (Rochet and Tirole 2006) which says that  $IF \leq$  transactional benefits of card payments, which means by Baxter economic analysis  $b_B + b_S \geq c_B + c_S = c$  which leads to the assumption that  $p_B = c_B - a = c - b_S$ . After calculations we receive  $p_S = c_S + a = b_S$ . So the usage of credit card as payment is when  $b_B \geq p_B = c - b_S$ . But what are the exact costs and benefits<sup>5</sup> for each of the payment instruments?

## DIRECT DEBIT SCHEME

According to the European Central Bank, the Direct debit scheme can be regarded as a set of functions, procedures, arrangements, rules and device that enable the authorized debiting of the payer's payment account, initiated by the payee either as a single payment or a series of payments.

A direct debit scheme can be broken down into six sub-systems:

1. Overall scheme management;
2. Direct debit use<sup>6</sup>;
3. Direct debit payee sub-system<sup>7</sup>;
4. Direct debit payer sub-system<sup>8</sup>;
5. Operational facilities<sup>9</sup>;
6. Clearing and settlement<sup>10</sup>.

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<sup>5</sup> According to Zenger, merchants' willingness to pay for cards consists of two factors: 1) Transactional benefits (e.g., immediate cost benefits compared to other means of payment). 2) Additional spending (e.g., the competitive desire to accept cards to offer customers a good service).

<sup>6</sup> The *direct debit use sub-system* covers the relationships between the payer and the payee (mandates, information regarding transactions).

<sup>7</sup> The *direct debit payee sub-system* includes, notably, accreditation and management of payees, monitoring of activity and fraud, verification, forwarding and execution of transactions (including R-transactions). These activities are generally assumed by the payee's PSP.

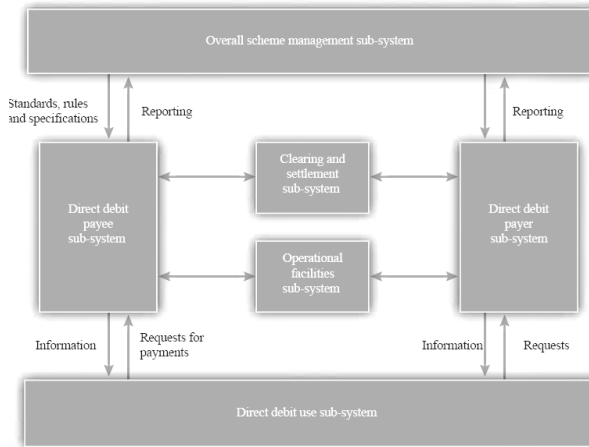
<sup>8</sup> The *direct debit payer sub-system* deals with the relationship with payers and the execution of transactions. These activities are generally assumed by the payer's PSP.

<sup>9</sup> The *operational facilities sub-system* represents technical and organizational services, for example, the telecommunication network enabling the exchange of data between the payee's PSP and the payer's PSP during the different phases, or other services such as the allocation of identifiers. These activities may be specific to the direct debit scheme or common with other services and may be performed by the same entities as clearing and settlement.

<sup>10</sup> The *clearing and settlement sub-system* concerns all activities and infrastructures needed for the bilateral or multilateral clearing and settlement of direct debit transactions. Different forms of clearing and settlement may be used within the scheme.

The different sub-systems present in the direct debit scheme are described below. The subsystems are presented on the basis of the tasks they carry out, and not on that of the physical elements or entities that carry them out. It should be clarified that, within each sub-system, several entities may be involved in performing the related tasks.

Figure 3. Direct Debit Schemes



Source: European Central Bank, 2009.

The overall scheme of management sub-systems is dedicated to governance. Its responsibilities include, for example, the definition and evolution of standards, rules and specifications, or the selection and adoption of existing ones, as well as policies concerning access to the scheme, competition, pricing, fraud prevention, governance, monitoring of activities, compliance with the standards, dispute resolution, etc.

## DISCUSSION

Due to a frequent use of paying by credit cards the dilemma of interchange fee is right here. In 2002 the European Commission exempted Visa's multilateral interchange fees from Article 81 of the EC Treaty that prohibits anti-competitive arrangements<sup>11</sup>. However, this exemption has expired on December 31, 2007<sup>12</sup>.

<sup>11</sup> Commission exempts multilateral interchange fees for cross-border Visa card payments, 2002, available at: <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/02/1138&format=HTML&aged=1&language=EN&guiLanguage=en>.

<sup>12</sup> In the United Kingdom, MasterCard has reduced its interchange fees while it is under investigation by the Office of Fair Trading.

In 2003, the Reserve Bank of Australia required that interchange fees be dramatically reduced, from about 0.95% of the transaction to approximately 0.5%. One notable result has been the reduced use of reward cards and increased use of debit cards. Following in November 2006, New Zealand is considering similar actions, alleging price-fixing by Visa and MasterCard; merchants pay a 1.8% fee on every credit card transaction. On December 19, 2007, the European Commission<sup>13</sup> issued a decision prohibiting MasterCard's multilateral interchange fee for cross-border payment card transactions with MasterCard and Maestro branded debit and consumer credit cards<sup>14</sup>. MasterCard has appealed the Commission's decision before the EU Court of First Instance; while the appeal is pending, MasterCard has temporarily repealed its multilateral interchange fees. On March 26, 2008, the European Commission opened an investigation into Visa's multilateral interchange fees for cross-border transactions within the EEA as well as into the 'Honor All Cards' rule (under which merchants are required to accept all valid Visa-branded cards)<sup>15</sup>. Moreover, the antitrust authorities of EU Member States other than the United Kingdom as Poland<sup>16</sup>, Israel, Spain, Portugal, Belgium, and the Netherlands are also investigating MasterCard's and Visa's interchange fees<sup>17</sup>.

Not only in payment cards but also in case of Direct Debit System should all actors and potential actors be able to access easily information relevant to them, to the extent permitted by data protection legislation, so that they can take appropriate action in all circumstances. Sensitive information should be disclosed only on a need-to know basis.

All actors (payees' PSPs, payers' PSPs, payees and payers) should have access to relevant information in order to evaluate risks affecting them, including financial risks. Moreover, sufficient information should be provided to the payers by other actors (e.g. payers' PSPs and payees).

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<sup>13</sup> The Commission concluded that this fee violated Article 81 of the EC Treaty that prohibits anti-competitive agreements.

<sup>14</sup> Antitrust: Commission prohibits MasterCard's intra-EEA Multilateral Interchange Fees, 2007, available at: <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1959>.

<sup>15</sup> Antitrust: Commission initiates formal proceedings against Visa Europe Limited, 2008, available at: <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/170&format=HTML&aged=0&language=EN&guiLanguage=en>.

<sup>16</sup> For example, on January 4, 2007, the Polish Office of Competition and Consumer Protection fined twenty banks a total of PLN 164 million (about \$56 million) for jointly setting MasterCard's and Visa's interchange fees.

<sup>17</sup> Office of Competition and Consumers' Protection, Department of International Relations and Communication Unlawful practices of banks, Poland 2007, available at: [http://www.uokik.gov.pl/en/press\\_office/press\\_releases/art72.html](http://www.uokik.gov.pl/en/press_office/press_releases/art72.html).

## CONCLUSIONS

Competitiveness on the market of payment instrument cannot be seriously measured while there are missing the price signals for end consumer. The system of IF and the whole structure of costs of one card transaction are split over four different parties together with no information for customer in advance about interchange fee. The transparency is absent here. The reason for this is the fact that system of paying using payment cards belongs to so called network business and there occurs information asymmetry.

The impact of SEPA, however, transcends monetary policy and payments services. The European Commission expects the legal and technical SEPA harmonization exercise to facilitate the dematerialization of business processes by replacing paper-based procedures with standardized electronic solutions such as e-invoicing.

On the other hand, what about the invisible hand of the market? *Laissez-faire*? Is the market with payment instruments working correctly enough to set certain level of competitiveness?

The Direct Debit Scheme should have effective, accountable and transparent governance arrangements that constitute one of the five standards the European Central Bank has established. Effective, efficient and transparent rules and processes should be defined and implemented when:

- making decisions about business objectives and policies, including access policies,
- reviewing performance, usability and convenience of the direct debit scheme,
- identifying, mitigating and reporting significant risks to the scheme's operation.

There should be an effective internal control framework, including an adequate and independent audit function. The correct signals can be made by publication of interchange fees, Honor-all-cards rule or no-surcharge rule.

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## KONKURENCYJNOŚĆ SYSTEMU PŁATNICZEGO

**Słowa kluczowe:** *opłata transakcyjna, karty kredytowe, Test Turysty, asymetria informacyjna*

**Abstrakt:** Konkurencyjność jest jednym z warunków funkcjonowania systemu rynkowego. Z biegiem czasu ludzie zmienili swoje pojmowanie systemów gospodarczych – od gospodarki barterowej do pieniądza papierowego. W dzisiejszym świecie, gdy IT staje się dużą częścią życia gospodarczego, pieniądz elektroniczny, e-portfele, płatności PayPal oraz inne płatności są coraz częściej używane i coraz ważniejsze. Obecnie systemy płatności stają się bardzo różnorodne, można więc mówić o rynku instrumentów płatniczych. W tym kontekście kluczowe staje się sprawne funkcjonowanie tych rynków. Celem artykułu jest określenie zasad, warunków na rynku instrumentów płatniczych. Analiza jest prowadzona od strony popytu i podaży. W analizie uwzględniono system kart kredytowych oraz system polecenia zapłaty, wraz z najnowszą teorią Testu Turysty.

