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## **Payment Card Systems as an Example of two-sided Markets - a Challenge for Antitrust Authorities**

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## Payment Card Systems as an Example of Two-sided Markets – a Challenge for Antitrust Authorities

by

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### *Abstract*

This article aims to present the concept of two-sided markets on the example of payment card systems, which have attracted the attention of regulatory and antitrust authorities in recent years. First, the paper offers a few insights into the basic economic theory behind two-sided markets. Second, it presents a brief description of payment card systems and their features. The following analysis focuses on arguments that speak in favour of a regulatory or antitrust intervention into payment card systems. Finally, some of the potential problems that antitrust authorities must face when assessing two-sided markets are presented on the basis of an assessment of the decisional practice of the UOKiK President and the European Commission.

**Classifications and key words:** two-sided markets, antitrust v. regulation, interchange fees, payment card systems.

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## I. Introduction

Since 1986 and the US *NaBanco*<sup>1</sup> case, competition law and regulation continue to be interested in interchange fees associated with payment card systems. Nonetheless, the approach of the antitrust and regulatory authorities has gradually changed both in relation to the existence of interchange fees as well as their level. The US District Court ruled in the *NaBanco* case that interchange fees were a necessary element of the relevant market consisting of all payment systems (including cash and checks). Even though interchange fees had substantial anti-competitive effects, these were offset by their pro-competitive benefits. In the opinion of the court, no less restrictive alternative was available<sup>2</sup>.

In 2002, the European Commission granted an Article 81(3) EC exemption to VISA for its Multilateral Interchange Fee (hereinafter, the VISA decision). The decision was subject to the condition that the level of the interchange fee is modified and based on prescribed cost categories<sup>3</sup>. The exception expired on 31 December 2007. In 2003, the Reserve Bank of Australia used a cost-based formula to arbitrarily lower the level of interchange fees<sup>4</sup>. In a decision of 29 December 2006, the President of the Polish Office of Competition and Consumer Protection (UOKiK) found the joint setting of interchange fees by major Polish banks to be restricting competition (hereinafter, the UOKiK President decision). The contested practice took place within the framework of the Visa and MasterCard platforms. The Polish competition authority ordered the practice to be ceased<sup>5</sup>. The UOKiK President decision was overruled in 2008 by the Polish Court for Competition and Consumer Protection (SOKiK)<sup>6</sup>. At the end of 2007, the European Commission issued an extensive decision concerning the MasterCard system (hereinafter, the MasterCard decision) making a total U-turn in comparison to the earlier Visa case. The Commission declared MasterCard's Multilateral Interchange Fee to be restrictive of

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<sup>1</sup> *National Bancard Corp. v. VISA U.S.A., Inc. (NaBanco)* 596 F. Supp. 1231 (S.D. Fla. 1984), aff'd, 779 F.2d 592 (11th Cir.), cert. denied 478 U.S. 923 (1986).

<sup>2</sup> *NaBanco*, 596 F. Supp. at 1265.

<sup>3</sup> Commission decision of 24 July 2002, Case No. COMP/29.373, *Visa International*, OJ [2002] L 318/17.

<sup>4</sup> See: H. Chang, D. S. Evans, D. D. Garcia Swartz, "The Effect of Regulatory Intervention in Two-Sided Markets: An Assessment of Interchange-Fee Capping in Australia" (2005) 4(4) *Review of Network Economics* 328.

<sup>5</sup> Decision of the President of the UOKiK of 29 December 2006, DAR-15/2006, UOKiK Official Journal 2006 No. 1, item 5.

<sup>6</sup> Judgment of the Court of Competition and Consumer Protection of 12 November 2008, XVII Ama 109/07, unpublished.

competition and not fulfilling the conditions of an exemption contained in Article 81(3) TEC<sup>7</sup>.

This brief presentation is a good indicator of how complex the assessment of interchange fees really is. Despite all economic considerations regarding the particularities of interchange fees in the context of markets that serve as platforms, a situation where competitors (banks) meet and fix “prices” (the level of the interchange fee) gives rise to considerable anxiety for competition authorities. Still, however complex their analysis might be, public authorities must refrain from seemingly simplifying it by ignoring the fact that payment card systems are an example of a two-sided market, with all its specific characteristics and implications.

## II. Two-sided markets

### 1. Characteristics

Although the concept of two-sided markets might be difficult to grasp, consumers face them quite frequently in their everyday life. This is the case when buying a video game console or a computer operating system, reading newspaper advertisements or making payments with a credit or debit card. All these products or services have two traits in common. First is the necessity to “get on board” two groups of customers (the developers of video games or applications and their users, advertisers and newspaper readers, card holders and merchants) “whose ultimate benefit stems from interacting through a common platform”<sup>8</sup>. Second are the network externalities which occur, in general, when “the utility that a user derives from consumption of the good increases with the number of other agents consuming the good”<sup>9</sup>, the clearest example of which are telecoms services such as phone communication. The particularity of markets such as video games or payment card systems lies in the fact that network externalities take place between two sides of the market<sup>10</sup>

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<sup>7</sup> Commission decision of 19.12.2007 COMP/34.579 MasterCard, COMP/36.518 EuroCommerce and COMP/38.580 Commercial Cards.

<sup>8</sup> J. Rochet, J. Tirole, “Platform Competition in Two-Sided Markets” (2003) 1(4) *Journal of the European Economic Association* 990.

<sup>9</sup> M.L. Katz, C. Shapiro, “Network Externalities, Competition, and Compatibility” (1985) 75(3) *The American Economic Review* 424.

<sup>10</sup> J. Ferrando, J.J. Gabszewicz, D. Laussel, N. Sonnac, “Two-Sided Network Effects and Competition: An Application to Media Industries”, Centre de Recherche en Economie et Statistiques, Working Paper no 2004-09, available at <http://www.crest.fr/images/doctravail/2004-09.pdf>

as well as the fact that the impact of a purchase made on one side of the market is not internalised<sup>11</sup> by the user who made it<sup>12</sup>.

Although distinct, the two groups of customers acting on the opposite sides of the market are interconnected with each other. They are also equally important for one another and for the platform owner. This gives rise to the so called *chicken and egg problem*, where “to attract buyers, an intermediary should have a large base of registered sellers, but these will be willing to register only if they expect many buyers to show up”<sup>13</sup>.

These two characteristics imply that the pricing policy of two-sided markets is also unusual – the imperative of marginal revenue equating marginal costs<sup>14</sup> does not apply. In order to get both sides of the market “on board” and internalize indirect network externalities, pricing policies in two-sided markets must not only determine the level of the price (the total price for the service) but also its structure (how will the total price be distributed between the two sides of the market)<sup>15</sup>. This atypical pricing policy is combined with differences in price elasticities of demand of the two sides of the market because merchants are willing to pay more for the possibility of offering card payment than card holders for the possibility of using their cards. Therefore the side of the market with lower price elasticity of demand is treated by the platform as the profit centre<sup>16</sup> of the market and is charged more than the side that has a higher elasticity of demand.

## 2. Payment card systems as an example of two-sided markets

Payment card systems constitute one of the flagship examples of two-sided markets – cardholders on the one side – merchants on the other side. Two types of card systems can be distinguished: four-party (open-loop) payment associations and three-type (closed-loop) proprietary systems. The former involves four types of entities: cardholders, issuers, acquirers and merchants

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<sup>11</sup> The process of internalization leads to a situation in which social marginal benefits resulting from the fact that a new user has joined the network equal social marginal costs. If network effects are not internalized they become network externalities and in effect size of the network differs from the social optimum, see: R. Kowalski, “Efekty sieciowe a błędy rynku” [in:] T. Bernat (ed.), *Problemy globalizacji gospodarki*, Szczecin 2003, p. 116–117.

<sup>12</sup> J. Rochet, J. Tirole, “Platform Competition...”, p. 994.

<sup>13</sup> B. Caillaud, B. Jullien, “Chicken & Egg: Competition among Intermediation Service Providers” (2003) 34(2) *The RAND Journal of Economics* 310.

<sup>14</sup> See: J.M. Perloff, *Microeconomics*, Pearson 2007, p. 350–352.

<sup>15</sup> D. Evans, “The Antitrust Economics of Multi-Sided Platform Markets” (2003) 20(2) *Yale Journal on Regulation* 342.

<sup>16</sup> J. Rochet, J. Tirole, “Platform Competition...”, p. 991.

interacting through a platform (Visa or MasterCard). The platform owns and promotes the logo of the system, coordinates the interactions of the participants of the system and provides the necessary IT infrastructure to process its transactions. The “openness” of a four-party system results from the fact that any financial institution can join it in the capacity of an issuing or acquiring entity. In this system, fees are set by member banks (issuers and acquirers, even though most banks perform both functions) rather than by the owner of the platform. By contrast, in closed-loop systems, such as Diners Club or American Express, one entity issues cards to card holders and acquirers merchants, setting at the same time the fees for the services it renders.

It is necessary to describe how transactions are settled in the four-party system in order to facilitate the following analysis showing the role and function of the interchange fee. When a card holder purchases a good worth PLN 100 in a merchant’s shop and decides to pay for it by a card (credit or debit), the merchant sends the transaction data to his acquiring bank – the bank with which the merchant is linked by contractual relationship and which provided the merchant with the technical equipment and services necessary to accept card payments. The merchant receives the purchase price less a merchant discount – a fee the merchant pays for the possibility of accepting card payments, which is usually a percentage of the transaction value. Assuming that the merchant fee in this example equals 2,5%, the merchant ultimately receives PLN 97,50. The acquiring bank sends the transaction data to the issuing bank – the bank that issued the card and in which the merchant’s customer has its bank account. The acquiring bank receives the purchase price (PLN 100) less the interchange fee (say 0,5% of the transaction value, PLN 0,50) which the issuing bank pockets as its revenue. To close the circle, the issuing bank presents the card holder with a bank statement with a charge for PLN 100 out of which the merchant received PLN 97,50 and the remaining PLN 2,50 is split between the issuing and the acquiring banks.

The interchange fee is paid by the acquiring bank to the issuing bank. Its economic cost is born by the merchant and, most likely, ultimately by the customer to whom it is passed on by the merchant. However, it is not entirely clear how should the interchange fee be treated or what it actually is. Is it a fee for services or a price based on specific costs? Is it a transfer of benefits between the participants of a four-party payment system<sup>17</sup> or a balancing mechanism inevitable in two-sided market to balance the demand of card holders and merchants? It seems that the nature of interchange fees remains unclear.

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<sup>17</sup> Interchange fee is obviously not necessary in three-party systems where the issuing and acquiring functions are cumulated in one entity.

Indeed, even VISA and MasterCard presented diverging views in their respective proceedings before the Commission and the UOKiK President. In the Visa case, the interchange fee was said to be “a transfer between undertakings that are cooperating in order to provide a joint service”<sup>18</sup>. Before the UOKiK President, MasterCard initially argued that the interchange fee was a fee for services rendered to the acquiring bank. Later on, MasterCard decided to share the opinion of Visa stating that interchange fees were a mechanism of balancing the costs and benefits of a four-party payment card system<sup>19</sup>. In its ruling, SOKiK seemed to combine these two views. In the opinion of SOKiK, the interchange fee constituted a part of the issuer’s remuneration for offering the possibility to settle payments by card, or a price paid to the whole platform for the joint service it delivers to card holders and merchants<sup>20</sup>.

In view of the special characteristics of two-sided markets, it seems most appropriate to view interchange fees as a balancing mechanism. This is so, in particular, in light of the need to establish an optimal price structure that reflects the differences in the demand elasticities of card holders and merchants<sup>21</sup>. Thanks to interchange fees, card holders are priced less for the use of cards than merchants, whose demand is less elastic. This cross-subsidization leads to an increase in the total volume of transactions and, through network externalities, increases the overall value of the payment system for both sides of the market<sup>22</sup>. Thus, the lower the cost of the cards, the more customers want to use them, the more merchants are willing to accept them and the more important it is for them to be able to accept card payments, especially if competing merchants do so as well. Still, merchants would not be willing to accept card payments only because many customers have cards. Among other reasons for merchants to accept cards are cost savings in terms of security expenses and fraud protection<sup>23</sup>.

It follows from the above that interchange fees are necessary for a payment card system to function properly. What might raise doubts is the method of setting these fees. In a three-party system, all fees are set by one entity – the

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<sup>18</sup> Commission decision of 24.07.2002, par. 14.

<sup>19</sup> Decision of the President of UOKiK of 29 December 2006, DAR-15/2006, p. 61.

<sup>20</sup> Judgment of the Court of Competition and Consumer Protection of 12 November 2008, XVII AmA 109/07.

<sup>21</sup> See: B. Klein, A. V. Lerner, K. M. Murphy, L. L. Plache, “Competition in Two-Sided Markets: The Antitrust Economics of Payment Card Interchange Fees” (2006) 73(3) *Antitrust Law Journal* 591.

<sup>22</sup> *Ibidem*, p. 585.

<sup>23</sup> For further analysis of merchants’ benefits from interchange fee see: M.E. Guerin-Calvert, J. A. Ordovery, “Merchant Benefits and Public Policy towards Interchange: an Economic Assessment”, available at: [http://www.newyorkfed.org/research/conference/2005/antitrust/Guerin\\_Calvert\\_Ordovery.pdf](http://www.newyorkfed.org/research/conference/2005/antitrust/Guerin_Calvert_Ordovery.pdf).

owner of the platform – who is simultaneously the issuer and the acquirer. In four-party systems, such as MasterCard or Visa, its members – financial institutions – jointly set the level of the interchange fee. In principle however, each member retains the freedom to sign bilateral agreements setting interchange fees with other participants of the system. Without bilateral agreements, a default fee is applied, “fixed” in a multilateral agreements concluded either at a domestic or cross-border level<sup>24</sup>. The existence of a default interchange fee means that *some* fee will always be applied. This consideration is particularly important in the context of the Honour-All-Cards Rule, which protects customers from discrimination due to the type of card they use. Thus, knowing that the Honour-All-Cards Rule obliges merchants to accept all cards, some card issuers could demand excessive interchange fees from acquirers in bilateral negotiations if not for the existence of a default fee<sup>25</sup>.

### III. Reasons for intervention in payment card systems; regulation or competition

Despite the fact that payment card systems were considered “one of the great innovations of the twentieth century” by a representative of antitrust authorities<sup>26</sup>, they have also become an object of interest for both competition law enforcers and regulators. Those who insist on a need for a regulatory or antitrust intervention in the functioning of payment card systems formulate a number of arguments in favour of their claim.

First, regardless of whether payments are settled in cash or by card, consumers pay the same price for the product. This leads to a situation where those paying in cash cross-subsidise card holders<sup>27</sup> since card payments are considered to be more expensive to use than cash<sup>28</sup>. In more economic terms, payment card systems encourage an excessive use of cards by not charging consumers the

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<sup>24</sup> See: Commission decision of 19.12.2007, par. 3.1.1.

<sup>25</sup> B. Klein, A. V. Lerner, K. M. Murphy, L.L. Plache..., “Competition in Two-Sided Markets...”, p. 574. For a different view on the implications of interchange fees in the context of the Honour-All-Cards Rule see: Commission decision of 19.12.2007, par. 507–509.

<sup>26</sup> T.J. Muris, “Payment Card Regulation and the (Mis) Application of the Economics of Two-Sided Markets” (2005) 3 *Columbia Business Law Review* 515.

<sup>27</sup> This argument was also used by UOKiK, see: Decision of the President of UOKiK of 29 December 2006, DAR-15/2006, p. 52.

<sup>28</sup> J. Vickers, “Public Policy and the Invisible Price: Competition Law, Regulation, and the Interchange Fee”, Federal Reserve Bank of Kansas City Payments Systems Research Conference Proceedings, available at: [http://www.ofst.gov.uk/shared\\_ofst/speeches/spe0305.pdf](http://www.ofst.gov.uk/shared_ofst/speeches/spe0305.pdf)



full marginal cost of using a card<sup>29</sup>. However, the assumptions underlying this thesis are contestable. Some cost-benefit analyses<sup>30</sup> indicate that cash does not necessarily have the lowest social marginal cost when compared to other forms of payment. In addition, accepting cash payments carries with it its own costs for the merchant such as the need to pay for secure transport. The problem of cross-subsidization of card holders by cash payers is an effect of the competitive process. It is most likely also occurring between all other forms of payments because their marginal costs are unlikely to be equal.

Second, interchange fees lead to higher prices for customers since merchants pass on the fees which they themselves have to pay. Although this argument may seem convincing, at the same time customers receive the possibility to avoid paying in cash at a price that is below the marginal cost of this service for the issuing bank. Still, the extent to which card holders' fees are lower than marginal costs will depend, *inter alia*, on the market power of the issuing bank and the price elasticity of card holders' demand.

Third, an intervention in payment card systems is also supported by the fact that issuing banks compete so fiercely to attract potential card holders that they waste scarce resources on advertising (imposing an undesirable social cost)<sup>31</sup>. However, this claim ignores the existence of social efficiencies resulting from advertising such as educating the market or rising product awareness. Furthermore, this argument seems overly intrusive in relation to the freedom of companies to choose which business model they wish to adopt in order to compete in the market.

Finally, even if the interchange fee is a balancing mechanism only, used to eliminate externalities associated with two-sided markets, the member banks do not have the incentive to set the fee at a socially optimal level. Instead, it is more likely that they fix it at a level that maximizes their profits<sup>32</sup>. This argument could suggest the need for a more nuanced approach to be applied to payment card systems – one that acknowledges the necessity of a balancing mechanism (thus not attacking the fact of the existence of interchange fees) but intervenes where the actual level of the fee is concerned. In particular, linking the interchange fee to specific costs might constitute a remedy that would mitigate the participating banks in their pursuit of maximum profits<sup>33</sup>.

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<sup>29</sup> D. D. Garcia Swartz, R. W. Hahn, A. L.-Farrar, "The Move toward a Cashless Society: a Closer Look at Payment Instrument Economics" (2006) 5(2) *Review of Network Economics* 175–198.

<sup>30</sup> *Ibidem*.

<sup>31</sup> A. S. Frankel, A. L. Shampine, "The Economic Effects of Interchange Fees" (2006) 73(3) *Antitrust Law Journal* 635.

<sup>32</sup> *Ibidem*, p. 649

<sup>33</sup> The Commission seems to have adopted this approach in its Visa decision, see: Commission decision of 24.07.2002, par. 80.

However, certain points must be stressed before this approach can be accepted. Economic analysis carried out by leading experts in the field of two-sided markets shows that the privately optimal and socially optimal level of interchange fees is not equal. Still, the same authors maintain that it is currently hard to determine whether the level of the fee chosen by the member banks will remain too high or too low compared to the social optimum<sup>34</sup>.

The method of setting interchange fees in four-party payment systems bears resemblance to a naked horizontal price-fixing cartel. In most cases, it was likely for this very reason that payment card systems have attracted the attention of antitrust authorities. However, some of the tools that competition authorities used in this context look a lot more like actions that could and should be taken by regulators than those normally associated with antitrust<sup>35</sup>. That is the case, in particular, when the level of interchange fees was linked to certain “objective” costs<sup>36</sup>.

The UOKiK President commissioned an experts’ opinion on the costs associated with payment card systems in Poland and the way in which they are reflected in the level of interchange fees<sup>37</sup>. The authority’s conclusions seem to have stepped into the shoes of a price regulator where it claimed that the fees were not set in an “objective” way since they were not based on costs<sup>38</sup>.

Antitrust enforcers are not meant to decide which types of costs are relevant and should be reflected in the level of interchange fees, especially since even economic scholarship cannot agree on which costs should be admissible in this context. In fact, some economists go as far as strongly criticizing cost-based interchange fees<sup>39</sup>.

Another atypical application of competition law to payment card systems could occur if antitrust authorities tried to reduce the seemingly excessive use of cards by customers. This would amount to reducing output, which is not a normal goal of competition law.

It has also been suggested that the Commission’s change of attitude towards interchange fees<sup>40</sup> was triggered by increasing concerns for the effective launch

<sup>34</sup> J. Rochet, J. Tirole, “Competition policy in two sided markets with a special emphasis on payment cards” [in:] P. Buccirossi (ed.), *Handbook of Antitrust Economics*, MIT Press, Cambridge, p. 575.

<sup>35</sup> See note 33.

<sup>36</sup> For a critical analysis of using price regulation to overcome anti-competitive practices in payment card systems see: W. Szpringer, “Opłata za autoryzację transakcji kartami płatniczymi – punkt widzenia banków” (2002) 4 *Prawo Bankowe*, p. 74.

<sup>37</sup> Decision of the President of UOKiK of 29 December 2006, DAR-15/2006, p. 16.

<sup>38</sup> *Ibidem*, p. 33.

<sup>39</sup> J. Rochet, J. Tirole..., “Platform Competition...”, p. 577.

<sup>40</sup> In the Visa decision, the Commission stated that interchange fees did not restrict competition by object and that they qualified for an Article 81(3) TEC exemption. In the

of the Single European Payment Area<sup>41</sup>. In the MasterCard decision, the Commission stated that a scenario where domestic card systems migrate to Visa or MasterCard (attracted by the profits associated with their interchange fees) is not desirable. Although this would indeed make them SEPA compliant<sup>42</sup>, it would also reinforce the market position of VISA and MasterCard<sup>43</sup>. This intervention seems to have been yet again motivated by more regulatory than competition law goals.

Competition law and regulation constitute two separate forms of market control – they have distinct tools serving different aims<sup>44</sup>. As such, they should not be confused and used interchangeably. Antitrust authorities do not have the necessary skill and expertise to use regulatory instruments and the same is true with respect to regulators trying to act like a competition law enforcer. It could well be that payment card systems require a specific regulatory framework<sup>45</sup>. Nonetheless, it should not be introduced under the cover of antitrust proceedings.

## IV. Antitrust problems in two-sided markets

### 1. Relevant market

Two-sided markets are a real challenge for competition law authorities. Due to their specific characteristics, an antitrust analysis faces several problems that cannot be solved in a way analogue to single-sided markets. These problems will be identified here on the basis of a critical analysis

later MasterCard decision, it ruled that interchange fees restrict competition and could not be exempted, see: Introduction.

<sup>41</sup> For more details about SEPA and payment card systems see: A. Heimler, Sean F. Ennis, “Competition and Efficiency in Payment Cards: Which Options for SEPA?” (2008) 31(1) *World Competition* 19-35.

<sup>42</sup> In order to become SEPA compliant the domestic card systems may either replace their national scheme with an international one, co-brand with an international scheme or make alliances with other card schemes so as to expand to the entire euro area, see: European Central Bank, *The Eurosystem’s View of a “SEPA for Cards”*, available at: [www.ecb.int/pub/pdf/other/eurosystemviewsepacardsen.pdf](http://www.ecb.int/pub/pdf/other/eurosystemviewsepacardsen.pdf)

<sup>43</sup> See: Commission decision of 19.12.2007, par. 471-486.

<sup>44</sup> For an analysis of the differences between antitrust and regulation see: I. Maher, “Regulating Competition” [in:] C. Parker, C. Scott, N. Lacey, J. Braithwaite (eds.), *Regulating law*, Oxford University Press 2004, p. 186-206.

<sup>45</sup> For an analysis why civil law provisions are not adequate to deal with the problem of interchange fees see: W. Szpringer, “Opłata za autoryzację transakcji kartami płatniczymi – nowy aspekt ochrony konsumenta?” (2001) 12 *Prawo Bankowe* 87-88.

of the three aforementioned decisions: Visa, MasterCard and the UOKiK President.

Even the opening step of an antitrust analysis – the relevant market definition – faces major difficulties. Competition law authorities are often tempted to view two-sided markets from a vertical point of view as if the interactions within the platform were similar to different levels of a production chain. Such a methodology places acquiring and issuing services downstream and platform services upstream<sup>46</sup>. This approach is often accompanied by the fact that complaints, usually made by merchants' associations, state that interchange fees set the floor for merchant fees<sup>47</sup>. As a result, antitrust authorities tend to concentrate their analysis on the acquiring part of the market, ignoring its issuing side.

Both the UOKiK President and the Commission in its MasterCard decision defined the relevant product market as the market for acquiring payment cards<sup>48</sup>. This approach overlooks the fact that the “product” in payment card systems is not only used by merchants but also by card holders and that the interchange fee affects not only the former but also the latter category of customers. Focusing on one side of the market only makes it impossible to fully appreciate the balancing role of interchange fees and the interdependence of the two sides of the market. In comparison, the relevant market in the Visa decision was said to consist of different payment card schemes (not including other means of payment such as distance payments, cash or cheque)<sup>49</sup>. On this basis, the Commission was able to consider the demand of merchants and the demand of card holders as well as their interdependence.

Generally, the hypothetical monopolist test, also referred to as the SSNIP test, is used to delineate the relevant market. However, a question arises which prices should this test relate to in two-sided markets: card holders' fees, merchants' fees or the sum of both? In the MasterCard decision, in line with the opinions expressed in legal and economic literature<sup>50</sup>, MasterCard advocated the application of the SSNIP test to the sum of card holders' and merchants'

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<sup>46</sup> See: Commission decision of 19.12.2007, par. 263.

<sup>47</sup> See: Decision of the President of UOKiK of 29 December 2006, DAR-15/2006, p. 51.

<sup>48</sup> Ibidem, p. 37, Commission decision of 19.12.2007, par. 329.

<sup>49</sup> Commission decision of 24.07.2002, par. 43–52.

<sup>50</sup> See: R. B. Hesse, J. H. Soven, “Defining Relevant Product Markets in Electronic Payment Network Antitrust Cases” (2006) 73(3) *Antitrust Law Journal* 730 and E. Emch T. S. Thompson, “Market Definition and Market Power in Payment Card Networks” (2006) 5(1) *Review of Network Economics* 45–60. For an alternative application of the SSNIP test in two-sided markets, yet still taking into account the independencies of both sides, see: L. Filistrucchi, “A SSNIP Test for Two-Sided Markets: The Case of Media”, *NET Institute Working Paper* No. 08-34, available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1287442](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1287442).

prices<sup>51</sup>. Still, the Commission, allegedly fearing the cellophane fallacy, while defining the relevant market decided to emphasise product characteristics and past switching patterns rather than rely on the SSNIP test<sup>52</sup>.

In contrast, the UOKiK President decided to carry out a SSNIP test covering the acquiring side of the market only – considered were therefore merely merchants' fees<sup>53</sup>. However, a single-sided approach to the definition of the relevant market flaws the whole of the following analysis of the balancing mechanism. When only the acquiring side is taken into account, all that can be said with respect to interchange fees is that they set the floor for merchants' fees<sup>54</sup>. This finding says nothing about the function and effects of interchange fees from the perspective of card holders.

The view of the UOKiK President on the relevant market was not shared by SOKiK. The court did not uphold the antitrust decision precisely because of an erroneous definition of the relevant market. It has rightly noticed that the interchange fee cannot be assessed with respect to the acquiring side of the market only. It also indicated that it shared the views expressed by the Commission in its Visa decision where the relevant market was said to consist of the Visa and the MasterCard systems. Some elements of an economic analysis of two-sided markets were used to justify SOKiK's conclusions. This is noticeable, in particular, where the court stated that the interchange fee is a mechanism dividing the costs of payment card systems between its participants – card holders on one side and merchants on the other<sup>55</sup>.

A proper determination of the relevant market is fundamental to an antitrust analysis – errors made at this stage of the assessment cannot be remedied later on, they lead to enforcement results that are at odds with an economic analysis. Considering only one side of the platform makes it impossible to assess the entirety of the system and, in the words of SOKiK, when that is the case, the antitrust analysis dangles in a vacuum<sup>56</sup>.

## 2. Intra-system v. inter-system competition

The Commission has clearly changed its views concerning the definition of the relevant market in the time between the Visa and MasterCard cases. Among the reasons for the shift is its new focus on intra-system (between

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<sup>51</sup> Commission decision of 19.12.2007, par. 252.

<sup>52</sup> *Ibidem*, par. 287.

<sup>53</sup> Decision of the President of UOKiK of 29 December 2006, DAR-15/2006, p. 37.

<sup>54</sup> *Ibidem*, p. 51.

<sup>55</sup> Judgement of the Court of Competition and Consumer Protection of 12 November 2008.

<sup>56</sup> *Ibidem*.

the members of the Visa or MasterCard associations), rather than inter-system, competition (between Visa and MasterCard). In the Visa decision, the Commission rightly noticed that interchange fees affect both of these relationships. Despite that fact, in the MasterCard decision, the Commission expressed the view that inter-system competition causes upward pressure on the level of the interchange fee. That would be so, because both Visa and MasterCard aim to attract a large number of banks by offering profits from high interchange fees<sup>57</sup>. For this reason, the Commission decided to concentrate its analysis on intra-system competition. It is likely, that a broad definition of the relevant market (comprising various payment card systems) would have made this analysis more difficult.

Thus another peculiarity associated with the assessment of two-sided markets in antitrust proceedings becomes evident – more competition (between platforms) may lead to higher interchange fees. Clearly, this is a very counterintuitive conclusion. Importantly, the UOKiK President took note of this fact in its decision<sup>58</sup>.

Payment card systems differ also from industries where it cannot be determined<sup>59</sup> whether breakthrough competition *for* the market (inter-system) is more beneficial than incremental competition *in* the market (intra-system). This is a consequence of multi-homing, in other words, the fact that merchants accept both Visa and MasterCard cards (as opposed to single-homing when only one brand is accepted). Multi-homing eliminates the possibility of a “winner-takes-it-all” outcome. Thus, no true competition *for* the payment cards market exists.

### 3. Effects of competition on prices

Among the distinguishing features of two-sided markets lies the fact that the effects of competition on prices are far more complex than in single-sided industries. This characteristic can be traced back to differences in the price elasticities of demand between the two sides of the market and indirect network externalities. Merchants may, for instance, be willing to pay higher merchant fees if this will result in lower card holders’ fees, which will increase in turn the number of customers interested in the possibility of paying by card.

Although increased inter-system competition (between issuing or acquiring banks) will exert downward pressure on prices on one side of the market,

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<sup>57</sup> Commission decision of 19.12.2007, par. 467–470.

<sup>58</sup> Decision of the President of UOKiK of 29 December 2006, DAR-15/2006, p. 52.

<sup>59</sup> R. Pardolesi, A. Renda, “The European Commission’s Case Against Microsoft: Kill Bill?” (2004) 27(4) *World Competition* 525.

it can also have an unexpected effect on the other side. Should merchant fees substantially decrease, card holders' fees would have to increase to compensate. This would then discourage customers from the use of cards, making it less sensible for merchants to offer to accept them. However, this would also reduce the profits of the merchants since customers without the necessary financial resources would not have access to credit with a free-interest period.

Antitrust authorities should consider not only the price level but also the price structure found on two-sided markets. They should aim to encourage competition that leads to a balanced reduction in the price structure, rather than only in the price level. The Polish antitrust authority overlooked this fact when it argued that higher merchants' fees are detrimental to customers (since merchants pass them on to their customers)<sup>60</sup>. At the same time, the UOKiK President ignored the fact that higher merchants' fees *might* mean lower card holders' fees. This is a vivid example of why two-sided markets should be subject to a more sophisticated analysis. In particular, competition authorities should avoid confining themselves to basic assumptions applicable to single-sided markets.

Not pertinent to two-sided markets is also the reasoning that benefits for one group of customers (in terms of lower prices) cannot offset the harm (in terms of higher prices) caused to another group. In two-sided markets these two groups are closely interrelated and remain within the same market<sup>61</sup>.

#### 4. Conclusions

Payment card systems cannot be subject to a standard antitrust analysis. This is not to say that Visa and MasterCard can do no wrong from the point of view of competition law in light of the specificities of two-sided markets. Interchange fees can be used in an anti-competitive manner. They merit an informed and comprehensive assessment that takes into account indirect network externalities as well as the interdependence between the two types of customers found on payment card markets.

This article did not intend to provide definite and unequivocal solutions to the challenges faced by antitrust analysis in relation to two-sided markets. Neither lawyers nor economists seem to be able to agree on what approach should be applied in this context. By analysing the flaws in the decisional practice of both the UOKiK President and the Commission, this paper tried

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<sup>60</sup> Decision of the President of the UOKiK of 29 December 2006, DAR-15/2006, p. 52.

<sup>61</sup> E. G. Wey, *The Price Theory of Two-Sided Markets*, December 2006, p. 45, available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1324317](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1324317).

to present the range of problems faced by antitrust authorities in this context. Particularly emphasised was the need for a more sophisticated assessment<sup>62</sup> to be applied to payment card systems.

Meanwhile, MasterCard has filed an appeal against the decision issued by the European Commission<sup>63</sup>. It can be hoped that the Court of First Instance delivers a detailed assessment of the case based on a comprehensive analysis of the economics of two-sided markets.

## Literature

- Bernat T., *Problemy globalizacji gospodarki [Problems of globalisation of economy]*, Szczecin 2003.
- Buccirossi P. (ed.), *Handbook of Antitrust Economics*, MIT Press, Cambridge.
- Caillaud B., Jullien B., “Chicken & Egg: Competition among Intermediation Service Providers” (2003) 34(2) *The RAND Journal of Economics*.
- Chang H., Evans D.S., Garcia Swartz D.D., “The Effect of Regulatory Intervention in Two-Sided Markets: An Assessment of Interchange-Fee Capping in Australia” (2005) 4(4) *Review of Network Economics*.
- Emch E., Thompson T.S., “Market Definition and Market Power in Payment Card Networks” (2006) 5(1) *Review of Network Economics*.
- European Central Bank, *The Eurosystem’s View of a “SEPA for Cards”* [available at: [www.ecb.int/pub/pdf/other/eurosystemviewsepacardsen.pdf](http://www.ecb.int/pub/pdf/other/eurosystemviewsepacardsen.pdf) ]
- Evans D., “The Antitrust Economics of Multi-Sided Platform Markets” (2003) 20(2) *Yale Journal on Regulation*.
- Ferrando J., Gabszewicz J.J., Laussel D., Sonnac N., “Two-Sided Network Effects and Competition : An Application to Media Industries”, Centre de Recherche en Economie et Statistiques, Working Paper no 2004-09.
- Filistrucchi L., “A SSNIP Test for Two-Sided Markets: The Case of Media” NET Institute Working Paper No. 08-34.
- Frankel A.S., Shampine A.L., “The Economic Effects of Interchange Fees” (2006) 73(3) *Antitrust Law Journal*.
- Garcia Swartz D.D., Hahn R.W., Farrar A. L., “The Move toward a Cashless Society: a Closer Look at Payment Instrument Economics” (2006) 5(2) *Review of Network Economics*.
- Guerin-Calvert M.E., Ordovery J.A., “Merchant Benefits and Public Policy towards Interchange: an Economic Assessment” (2005).
- Heimler A., Ennis S.F., “Competition and Efficiency in Payment Cards: Which Options for SEPA?” (2008) 31(1) *World Competition*.

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<sup>62</sup> For a description of a whole range of economic factors that should be considered in a sophisticated analysis of two-sided markets see: S. Semeraro, “Credit Card Interchange Fees: Debunking Six Myths” (2008) 27(2) *Banking & Financial Services Policy Report* 6.

<sup>63</sup> Case T-111/08 *MasterCard and Others v Commission*, application, OJ [2008] C 116/26.



- Hesse R.B., Soven J.H., "Defining Relevant Product Markets in Electronic Payment Network Antitrust Cases" (2006) 73(3) *Antitrust Law Journal*.
- Katz M.L., Shapiro C., "Network Externalities, Competition, and Compatibility" (1985) 75(3) *The American Economic Review*.
- Klein B., Lerner A.V., Murphy K. M., Plache L. L., "Competition in Two-Sided Markets: The Antitrust Economics of Payment Card Interchange Fees" (2006) 73(3) *Antitrust Law Journal*.
- Muris T.J., "Payment Card Regulation and the (Mis)Application of the Economics of Two-Sided Markets" (2005) 3 *Columbia Business Law Review*, pp. 515-550.
- Pardolesi R., Renda A., "The European Commission's Case Against Microsoft: Kill Bill?", (2004) 27(4) *World Competition*.
- Parker C., Scott C., Lacey N., Braithwaite J. (eds.), *Regulating law*, Oxford University Press 2004.
- Perloff J.M., *Microeconomics*, Pearson 2007.
- Rochet J., Tirole J., "Platform Competition in Two-Sided Markets" (2003) 1(4) *Journal of the European Economic Association*.
- Semeraro S., "Credit Card Interchange Fees: Debunking Six Myths" (2008) 27(2) *Banking & Financial Services Policy Report*.
- Szpringer W., "Opłata za autoryzację transakcji kartami płatniczymi – nowy aspekt ochrony konsumenta?" ["Payment for authorization of transactions with payment cards – New aspect of consumer protection?"] (2001) 12 *Prawo Bankowe*.
- W. Szpringer, "Opłata za autoryzację transakcji kartami płatniczymi – punkt widzenia banków" ["Payment for authorization of transactions with payment cards – a point of view of banks"] (2002) 4 *Prawo Bankowe*.
- Vickers J., "Public Policy and the Invisible Price: Competition Law, Regulation, and the Interchange Fee", Federal Reserve Bank of Kansas City Payments Systems Research Conference Proceedings [available at: [http://www.oft.gov.uk/shared\\_of/speeches/spe0305.pdf](http://www.oft.gov.uk/shared_of/speeches/spe0305.pdf)].
- Wey E.G., *The Price Theory of Two-Sided Markets*, December 2006 [available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1324317](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1324317)].