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Private cards and the bypass of payment systems by merchants

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ABSTRACT

This paper studies the incentives of a merchant to bypass a payment platform by issuing private cards. In our model, a payment platform allocates the total cost of a card transaction between a monopolistic issuer and a monopolistic acquirer by choosing an “interchange fee”. We determine how the level of the interchange fee impacts a merchant’s decision to issue private cards, if there are strategic interactions between merchants. We prove that the payment platform can only deter entry by lowering the level of the interchange fee. If the payment platform chooses to accommodate entry, we find that the total user surplus increases, but that entry is beneficial to social welfare only if the entry cost is sufficiently low.

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1. Introduction

In the United States, in 2006, payment card transactions cost merchants nearly \$57 billion.¹ The costs of card payments is a major source of conflict between banks and merchants. Merchants have to pay a fee (the “merchant fee”), which they claim to be excessive, to their bank (the “Acquirer”), each time a consumer pays by card.² In 2005, in the United States, the usual amount of the merchant fee ranged from 1% to 2.7% of the transaction. Merchants argue that they cannot pass through this cost to consumers, since surcharges are forbidden by most payment card associations (like Visa).³ Also, they

contend that it has become impossible to refuse a payment instrument which is now widely used by consumers.

This explains why merchants have thought about strategies to reduce the costs of payment card transactions. One of these strategies, which has been implemented by large retailers such as Wal-Mart or JC Penney and Macy’s, has been to start issuing “private cards”. Unlike payment cards issued by banks, which are members of payment card associations, private cards can only be used at the retailer’s shop. The private card enables the merchant to save the cost of the merchant fee, if it is issued without the support of a financial institution. The detention and usage of private cards have become widespread over the last 10 years. According to the International Card Manufacturer’s Association (IMCA), 5.6 billion private cards have been sold or delivered worldwide in 2004. Also, in the United States, several merchants have introduced retailer-debit card programs that leverage the ACH (Automatic Clearing House) network, bypassing the online and offline debit card networks.⁴

For all these reasons, it has become particularly interesting to study entry and bypass strategies in payment card markets. Public

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¹ Source: Nilson Report, Issue 877 (2007).

² See for instance <http://www.nationalgrocers.org>, “Of further concern is the grocery industry trend toward both higher interchange rates and higher volumes of electronic transactions, with a number of companies reporting more than 50% of their purchases being made with credit and debit cards”. See also the Visa Wal-Mart case (2003).

³ No-surcharge rules have been examined in several countries and abolished in The Netherlands, Sweden, the United Kingdom, Australia, and New Zealand. Bolt et al. (2010) study the impact of removing the no-surcharge rules on consumer and merchant behavior. They find that allowing merchants to surcharge provides consumers with incentives to switch from debit cards to cash, which increases the social cost of payment instruments.

⁴ In the United States, for instance, Tempo, a merchant-owned and operated payment card network launched a “decoupled debit card”. When a customer presents this card at the point of sales, merchants that accept Tempo cards originate an ACH debit against the customer’s deposit account.

authorities in various countries (e.g., Spain, United Kingdom, Denmark, The Netherlands, United States, Mexico, and Australia) have also expressed concern about the practices of the bank-owned payment systems.⁵ In Europe, for instance, the European Commission and the Parliament have set up a new regulatory framework, the Payment System Directive, and supported the SEPA project, so as to facilitate entry and promote competition in payment card markets.⁶ Some merchants have taken advantage of this new context by launching a merchant European Payment Scheme called Payfair. This payment system is designed to offer to the merchants payment solutions at a lower cost, enabling them to choose between various options, as the services (such as the payment guarantee) are unbundled. The regulatory authorities are also monitoring closely the level of the interchange fees that are set by the payment card systems. For instance, an agreement has been reached between MasterCard and the European Commission in April 2009 to lower its interchange fee level, such that the merchants do not pay a fee that exceeds their benefit of accepting cards. The European Commission has also launched recently an enquiry against Visa about the level of the interchange fees and other system rules and practices.⁷

The purpose of this paper is to analyse merchants' incentives to issue private cards, and to characterise the possible reactions of the payment card association. In particular, we try to determine if the level of the interchange fee that is set by the payment platform can affect the merchants' incentives to bypass the payment system.

Payment card networks are often managed by a payment association, such as Visa, or MasterCard, which organises the interactions between the bank of the cardholder, the "Issuer", and the bank of the merchant, the "Acquirer". Such payment card associations entail several benefits for the bank members, such as efficiencies gains in transaction processing. Payment card associations also enable banks to allocate optimally the total cost of a payment card transaction between each other, by choosing an "interchange" fee, that is paid by the Acquirer to the Issuer, each time a consumer pays by card. The effect of the interchange fee is to reduce the marginal cost of the Issuer and to increase the marginal cost of the Acquirer. This is a way for the payment association of subsidizing the consumers' side, by allowing the Issuers to choose a lower price for the bank card, to the detriment of the merchants' side. Hence, though interchange fees stimulate the demand for card payments, their effect on merchants' side may provide large retailers with incentives to bypass the payment card association.

The possibility to bypass the payment association by issuing private cards has never been studied in the literature on payment card systems.⁸ Among others, Rochet and Tirole (2002) and Wright (2004) show that the optimal level of interchange fee depends on the nature of competition between merchants. An interesting insight, provided by Rochet and Tirole (2002), is that merchants are ready to accept higher merchant fees to avoid losing market share if they refuse cards. But no paper takes into account the fact that merchants can compete with the payment association by providing their own payment services. There is also a recent literature

about platform competition (See among others Rochet and Tirole (2003) and Guthrie and Wright (2007)). But our paper departs from this literature, since it assumes that platform competition depends on the merchant's bypass decision. Our model can also be viewed as an interesting case of endogenous platform competition in the payments industry, since we determine the conditions under which platform competition emerges as a result from one merchant's decision to bypass the payment card association.

We model the payment card association as a two-sided platform which organises the interactions between a monopolistic Issuer and a monopolistic Acquirer. We also consider two strategic merchants that are differentiated à la Hotelling, and positioned exogenously at the two extremes of a linear city of length one. They are homogenous as to their card acceptance benefit and accept bank cards if the merchant fee is not too high. A merchant which has low entry costs can choose to issue its private card. The private card cannot be used by consumers to pay at the other merchant's shop. We assume that consumers differ across their card usage benefit, which is the same for a given consumer if he pays by card or if he uses the private card.

We start by showing that, in this setting, if the merchant decides to issue its private card, he chooses a transaction fee equal to zero, such that, if consumers come to his shop, they always prefer the private card to the bank-issued payment card. The intuition is that the merchant is active on the market for card transactions and on the product market, and that his incentives on each of these two markets are to set a very low price for the private card. On the market for payment transactions, the merchant has an incentive to undercut the price that is set by the Issuer for the bank card. Also, the merchant chooses a low price for the private card because he obtains a higher benefit per-transaction if his consumers pay with the private card than if they pay cash. On the product market, the merchant has an incentive to set a low price for the private card, because he obtains a higher market share, by stealing consumers from his competitor.

We prove that, if one merchant issues private cards, the other merchant becomes less resistant to card acceptance than in the benchmark case, in which no merchant issues private cards. The threat of losing consumers on the product market raises the maximum merchant fee that he is willing to pay to accept bank cards. Since the monopolistic Acquirer chooses the maximum merchant fee compatible with merchants' acceptance of bank cards, the effect of the private card is to increase the merchant fee. On the other hand, the Issuer charges a lower card fee, to compete with the very aggressive price that is set by the merchant for the private card. Therefore, the competition with the private card changes the structure of prices.

Then, we derive the impact of the interchange fee on the merchant's incentives to enter the market for payment card transactions by issuing private cards. We show that there are two effects. A higher interchange fee reduces the card fee, which toughens the competition with the Issuer. This effect lowers the merchant's incentives to issue private cards. On the other hand, a higher interchange fee increases the merchant fee, and hence the costs of the rival merchant, which raises the benefits of issuing private cards. In our setting, the first effect is dominant if the card fee is sufficiently low, and the incentives to issue private cards decrease with the interchange fee. Otherwise, if the card fee is high, the second effect becomes dominant. If the card fee is low, the payment platform cannot deter entry, since it already sets the maximum interchange fee compatible with positive profits for the Acquirer when the merchant does not issue private cards. Hence, at the equilibrium, if the card fee is low, there is either blockaded entry or entry accommodation. The payment platform can only deter entry if the card fee is sufficiently high by reducing the level of the interchange fee. Therefore, if entry is not blockaded, we show

⁵ In Europe, the European Commission also investigated the cross-border interchange fees of Visa and MasterCard.

⁶ There might be other benefits to a Single Euro Payments Area, such as economies of scale in transaction processing. See Beijnen and Bolt (2009) for a study on economies of scale in the European payment processing industry.

⁷ In particular, the Statement of Objections concerns the "Honor-all-Cards rule", which forces the merchants to accept all the cards that are issued by the payment system, regardless of the brand. For further details, see "Antitrust: Commission sends Statement of Objections to Visa", MEMO/09/151, 6 April 2009.

⁸ For a review of the literature, see Rochet (2003), Chakravorti (2003) and Scholnick et al. (2008). See also Rochet and Tirole (2006) for a review of the related literature on two-sided markets.

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