

# INTERCHANGE FEE REGULATION

---

LabEx ReFi  
**POLICY BRIEF 2017 - 01**

Carlotta MARIOTTO and Marianne VERDIER

Founding members of the LabEx ReFi

---

## **Labex ReFi Policy Briefs**

This work was achieved through the Laboratory of Excellence on Financial Regulation (Labex ReFi) under the reference ANR-10-LABX-0095. It benefitted from a French government support managed by the National Research Agency (ANR) within the project Investissements d'Avenir Paris Nouveaux Mondes (investments for the future Paris-New Worlds) under the reference ANR-11-IDEX-0006-02.

*The findings, interpretations and conclusions expressed herein are those of the authors and do not necessarily reflect the view of the LabEx ReFi*

# Interchange Fee Regulation

**Carlotta MARIOTTO**

LabEx ReFi, ESCP-Europe, École Nationale Supérieure des Mines de Paris - Centre  
d'Économie Industrielle (CERNA)<sup>1</sup>

**Marianne VERDIER**

Université Paris 2 Panthéon Assas<sup>2</sup>

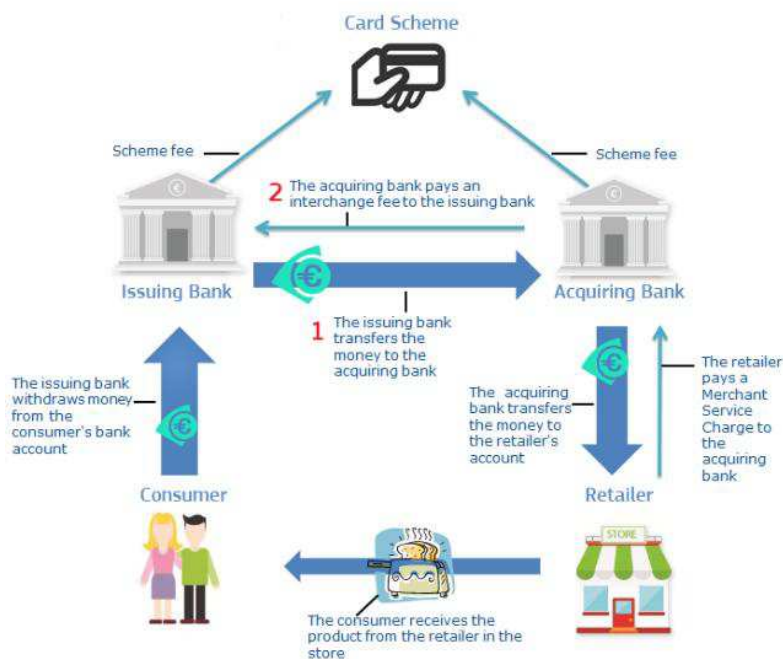
The great success of payment credit and debit card systems is partially due to the so called “open system” scheme of payment platforms, i.e. the scheme adopted by four-party payment platforms such as Visa and MasterCard. These platforms act as intermediaries between consumers’ banks (**the issuing banks**) and merchants’ banks (**the acquiring banks**). The issuing banks decide on the fees paid by cardholders, whereas the acquirers decide on the fees paid by merchants. These fees paid by consumers and merchants (membership, usage, or both) depend on the terms of contract between their bank and the platform. Banks usually pay membership fees to join a platform. Since issuing banks bear higher marginal costs than acquiring banks to provide the payment service to cardholders, the former pay the latter a per-transaction tax, called the **interchange fee** each time a consumer pays at the merchant’s shop by card (See figure 1). The interchange fee is set by the payment platform in order to even out the difference in marginal costs between issuing and acquiring banks and provide both sides with the right incentives to participate and accept the platform payment service.

---

<sup>1</sup> Mail: carlotta.mariotto@mines-paristech.fr

<sup>2</sup> Mail: marianne.verdier@u-paris2.fr

**Figure 1:** a four-party payment card scheme.



*Source: European Commission.*

Nevertheless, the optimal level of interchange fees in payment platforms is a controversial issue, which has generated rich theoretical and empirical debates. This is due to the fact that this fee impacts not only banks' marginal costs, but also merchants and consumers' marginal costs because of the pass-through via the transaction fees, and because of the fact that merchants may eventually pass-through their increase in marginal costs into higher retail prices for final consumers. The impact of the interchange fee on the prices paid by consumers and merchants depends on the pass-through of costs to consumers. This is determined by the nature of competition on the issuing and acquiring market, whereas the impact on retail prices depends on the level of competition of the retail market. An important issue therefore is to understand the role of merchants' pass-through into higher retail prices for consumers, both from a theoretical and an empirical perspective.

Several articles (e.g., Rochet and Tirole (2002), Wright (2012), Bedre and Calvano (2013)) have found that payment platforms choose an inefficient level of interchange fee

that results in over usage of payment cards. A first source of distortion is the role of "merchant internalization" identified by Rochet and Tirole (2002) and Wright (2012). These authors show that since these platforms have market power, they choose an inefficiently high level of interchange fee because merchants internalize a fraction of cardholders' surplus in their decision to accept cards, due to strategic interactions with other merchants. A second source of distortion identified by Bedre and Calvano (2013) arises from the fact that consumers make two distinct decisions (membership and usage), whereas merchants make only one (membership), and cannot decide to turn down card payments once they have accepted to do so. The article "The Role of Merchants' pass-through in Payment Platform Markets"(Mariotto and Verdier, 2017) identifies another source of distortion which is due to merchants' pass-through of their transaction costs to consumers, through higher retail prices. We show that this distortion may in some cases offset the effect of merchant internalization, and even eliminate the systematic bias found in favor of card holders in the choice of the profit-maximizing interchange fee when consumer demand on the product market is elastic to retail prices. Furthermore, we analyze how merchants' market power impacts the division of surplus between card users, cash users and merchants. Interchange fees are have recently been regulated in Europe with the Payment Service Directive of 2015 and in the USA with the Regulation II of the Dodd Frank Act. Both regulation capped the level of both credit and debit card interchange fees<sup>3</sup>. What we argue in our article is that, since interchange fees impact differently the pass-through rates of merchants into higher or lower retail prices depending on the level of competition, then a uniform cap for all markets may trigger inefficiencies and redistributions among markets for the level of interchange fees.

The cost pass-through in payment markets has already been empirically investigated by several authors. On one side, some researchers have focused on the effect of debit card interchange fees on the prices of other bank deposit services (see Manuszak and

---

<sup>3</sup> In Europe, the cap was of a maximum of 0.3% on the credit card transactions and 0.2 % for debit card transactions. In the USA, a cap of 21 cents plus 0.005% of the debit card transactions for large issuers was introduced.

Wozniak, 2017). Nevertheless, still some evidence is needed to assess a direct impact of interchange fees on transaction fees for merchants and eventually for consumers.

### **Policy implication**

Regulatory bodies and competition authorities should take into account all mechanisms through which costs and benefits are transferred from one side to the other in two-sided markets. These cross-effects are provided in our paper by merchants' pass-through and consumer elasticity. Moreover, we show that if merchants have market power, any excessive level of interchange fee may be explained by the degree of market power exerted by the issuing and acquiring banks and by their pass-through. The degree of pass-through in our model depends on the market structure and on the elasticity of consumer demand. The more the market is close to being perfectly competitive, the more the increase in costs and revenues will be fully passed-through to end-users, with a one to one relation. These effects confirm that authorities should take into account both sides for the definition of the relevant market and the assessment of the optimal interchange fee together with banks' and merchants' market structures. Finally, we show that the interchange fee causes redistributive effects among cash and card users' surpluses. The magnitude of this shift depends on merchants' pass-through, and, therefore, on the retail market structure. So, some potentially inefficient redistributive effects between markets are likely to arise by imposing a uniform level of interchange fee.

## **References**

Bedre Defolie, O. & Calvano, E. (2013): "Pricing Payment Cards," *American Economic Journal: Microeconomics* 5, 206-31.

Manuszak, Mark D. & Krzysztof Wozniak (2017): "The Impact of Price Controls in Two-sided Markets: Evidence from US Debit Card Interchange Fee Regulation," *Finance and Economics Discussion Series 2017-074*. Washington: Board of Governors of the Federal Reserve System, <https://doi.org/10.17016/FEDS.2017.074>.

Mariotto, C. & Verdier, M. (2017): "The Role of Merchants' Pass-Through in Payment Platform Markets," *available on SSRN*.

Rochet, J.-C. & Tirole, J. (2002): "Cooperation Among Competitors: The Economics of Payment Card Associations," *RAND Journal of Economics* 33, 549-570.

Wright, J. (2012): "Why payment card fees are biased against retailers," *RAND Journal of Economics* 43, 761-780.