



# Merchant steering of consumer payment choice: Evidence from a 2012 diary survey



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## ABSTRACT

This paper seeks to discover whether U.S. merchants are using their recently granted freedom to offer price discounts and other incentives to steer customers to pay with methods that are less costly to merchants. Using evidence of merchant steering based on the 2012 Diary of Consumer Payment Choice (DCPC), we find that only a very small fraction of transactions received a cash or debit card discount, and even fewer were subjected to a credit card surcharge. We attribute this finding in part to the merchants' fear of alienating consumers, who may not view the steering attempts as an "acceptable norm." Transactions at gasoline stations were more likely to receive either cash discounts or credit card surcharges than transactions in other sectors. Transactions over \$20 were significantly more likely to receive a cash discount.

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## 1. Introduction

Merchants pay higher fees for credit card transactions than for accepting other forms of payment, such as debit cards or cash. As discussed in Hayashi (2012), until recently merchants in the United States were prohibited by their contracts with the credit card networks from using discounts or surcharges to steer customers to pay for their purchases with debit cards. However, merchants were allowed to give discounts to customers who paid with cash or checks.<sup>1</sup> Recent U.S. legislation and court settlements removed these contractual prohibitions.

In this paper we use the results of the 2012 Diary of Consumer Payment Choice (DCPC) to obtain some early estimates of the degree to which merchants exercised their new freedoms to steer consumers to pay with payment instruments that are less costly to the merchants. Although the October 2012 diary survey used here was only three months after the class settlement date, we explore the extent to which

merchants might have taken advantage of their new pricing flexibility early on. In Shy and Stavins (2014) we showed how earlier pilot diaries inadequately attempted to elicit similar information from consumers. In the 2012 larger-sample diary, we revised the questions, aiming to elicit more accurate information about discounting and surcharging by merchants.

Steering consumers to pay with specific payment instruments can be attempted in various ways. The most obvious (but not necessarily profitable) way to steer is to refuse to accept a payment instrument. Some merchants refuse to accept credit cards, or they place a lower limit on the transaction value for which they accept credit cards. A second method is simply to ask the buyer to refrain from using a particular instrument. A third option is to provide some incentives, such as reward points, to customers who pay with the payment instrument most desired by the merchant, where the term "desired" generally (but not always) refers to a payment instrument that is less costly to the merchant.

The investigation in this paper focuses on two examples of the third steering method—merchants providing incentives and/or disincentives to consumers:

1. Offering price discounts to buyers who use the merchant's desired payment instrument.
2. Imposing price surcharges on buyers who use the merchant's least desired instrument.

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<sup>1</sup> See Barron, Staten, and Umbeck (1992) for a history of cash discounts in the United States following the 1981 Cash Discount Act H.R. 31, which became Public Law No: 97-25; see <http://thomas.loc.gov/cgi-bin/bdquery/z?d097:H.R.31>.

The article is organized as follows: [Section 2](#) presents some consumer-related behavioral aspects of steering by merchants. [Section 3](#) focuses on the merchant side and provides some background information about the recent legislative changes. [Section 4](#) describes the diary data used in this study. [Section 5](#) presents the analysis and the results. [Section 6](#) shows the regression model and results. [Section 7](#) concludes.

## 2. “Steering” at the point of sale as a social norm

This section explores some theoretical issues associated with a customer's choice of payment method. We construct a simple example that demonstrates how a merchant's ability to influence a customer's choice of a payment instrument is tied to a “social norm” or “common practice” of what a merchant should (and should not) do. Our analysis follows the approach proposed by [Harvey \(2006\)](#). The basic idea is that merchants can benefit from establishing “social norms” that would facilitate coordination with respect to less popular actions. Harvey shows that social norms could also be viewed as “focal points” where all market participants implicitly or explicitly agree to exercise a certain behavior.<sup>2</sup>

To motivate this idea, consider a resident of Europe shopping in the United States for the first time. The person is quoted a price of \$10 for an item in a store. At the checkout counter, the customer is charged \$10.50 because of an added sales tax. A consumer who has experience with merchants posting or quoting the full price inclusive of taxes may choose to exit the store and look for alternative outlets. The European practice of charging a single (tax-inclusive) price and the U.S. practice of adding a surcharge over the quoted or posted price can be viewed as two different social norms. That is, while merchants on both continents are free to choose the format in which they present prices to their customers, merchants in the United States choose to split the customer price into two components while merchants in Europe tend to only post or quote the full price inclusive of all taxes. Another example where consumers view differential pricing as a “norm” is gas stations, where U.S. consumers have been accustomed to prices that vary with the payment method.

### 2.1. Surcharging as a social norm

Consider a consumer who enters a store with the intention of using a certain payment instrument (call it “credit card”). The merchant tries to convince the consumer to use a different instrument (call it “other”). The merchant's action may generate resentment, as the consumer may suspect that the merchant is trying to extract more revenue from the sale. If this merchant is the only one who attempts to pressure his customers to switch to another payment method, the consumer may simply leave the store and shop elsewhere. In contrast, if attempting to steer consumer payment choice becomes the “norm,” consumers are less likely to be irritated by a merchant's attempts to influence the choice of a payment instrument. [Table 1](#) illustrates an example of this idea using two scenarios of prevailing social norms.

Scenario (a) in [Table 1](#) illustrates one buyer and one specific merchant who is the only merchant to impose a surcharge on credit card use. The buyer is assumed to gain 1% of the transaction value as a credit card reward (such as cashback). The merchant loses 2% of a credit card transaction value (having to pay interchange plus processor's fees). If the merchant chooses to recover the card fee by imposing a 2% surcharge, the merchant loses a customer as the buyer has an “outside” option [marked with an (o)]. The customer then leaves the store and purchases elsewhere where credit cards are not surcharged. This example assumes that a loss of this particular sale results in a 5%

**Table 1**  
Potential gains and losses to merchant and buyer from surcharging.

		Merchant			
		No credit card surcharge		Credit card surcharge	
(a) <i>Only one merchant surcharges</i>					
Buyer					
Credit card	1%	−2%		1% (o)	−5%
Other	0%	0%		0%	0%
(b) <i>Surcharging is the social norm</i>					
Buyer					
Credit card	1%	−2%		−1%	0%
Other	0%	0%		0%	0%

profit margin loss to the merchant. The outcome where the merchant does not surcharge and the buyer pays with a credit card constitutes a unique Nash equilibrium for scenario (a).

Scenario (b) in [Table 1](#) reflects a market where credit card surcharging becomes a social norm and is therefore common practice among merchants. Consumers now do not have much choice because all merchants impose a surcharge for the use of credit cards. Consumers now lose 1% if they pay with a credit card (1% reward minus 2% surcharge). Therefore, scenario (b) has unique Nash equilibrium where the merchant attempts to surcharge credit card transactions but the customer does not pay with a credit card.

### 2.2. Surcharging versus discounting from a consumer perspective

The game-theoretic scenario presented in [Table 1](#) explains why most merchants currently refrain from imposing card surcharges. This raises the question whether merchants are more likely to offer discounts to consumers who do not pay with credit cards. [Section 3](#) elaborates on this issue from the merchant perspective and shows that discounts may not be profitable to merchants. This section focuses only on the consumer behavioral side while leaving the merchants' profitability issues to [Section 3](#).

The game described in [Table 1](#) assumes that “surcharging” has a bad connotation to the buyer and may lead the buyer to leave the store and look for alternatives. To prevent that, merchants can instead steer by offering a discount on other payment instruments instead of imposing a surcharge on credit card transactions. Consumers are less likely to be alienated by this type of steering method. As suggested in [Thaler \(1980\)](#) and [Tversky and Kahneman \(1986\)](#), consumers may find it easier to forgo a discount than to accept a surcharge because the same price difference is valued as a gain in the former case and as a loss in the latter. This may explain why credit card networks' earlier contracts with merchants required that any price difference between cash and card should be labeled a cash discount rather than a credit card surcharge. In this respect, scenario (a) in [Table 1](#) could be modified to a game where the merchant offers 1% discount on other means of payments, thereby making the buyer indifferent between using credit cards and other means of payment. Note that in this example the merchant still gains 1% on this particular consumer despite the discount, because steering to other means of payment saves the merchant 2%.

## 3. The merchant side

### 3.1. Regulatory developments

In the United States, the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act requires the card networks to allow merchants to provide discounts based on whether payment is made by cash, check, debit card, or credit card. In addition, on July 13, 2012, the Eastern District Court of New York was asked to approve a class settlement between Visa and MasterCard and a large group of

<sup>2</sup> The term “focal point” is used in game theory to explain why a particular equilibrium is more likely to be realized than others. If coordination is not feasible, a focal point is a selection of an outcome that all players can easily identify and assume that all other players will follow without any explicit communication.

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