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Price Signals in Two-Sided Markets

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Two-sided platforms have represented an antitrust challenge in a similar way to the challenge posed by innovation and dynamics. Put simply, a seeming lack of price competition to one set of consumers may mask competition for another, related set of consumers. That is, low competition within one side of the market may simply reflect intense competition for the other side of the market. This notion has been traditionally a focus in media markets where media outlets have been seen to charge higher prices to advertisers in order to access consumers (treating them as any monopolist would). However, the very fact that an outlet can earn monopoly rents from advertisers for each consumer they have, means that they will have strong incentives to compete for those very consumers. Those consumers will face much lower prices (perhaps none at all) as a consequence. For any antitrust analysis, it is therefore important to consider both sides of such markets.

A similar effect has been observed in credit card associations—a focus of much antitrust and regulatory attention over the past decade. For such platforms, it is the merchants who perhaps face monopolistic service charges when allowing credit card transactions while their customers face low prices that are, in fact, inducements to put more and more transactions on their cards. While this appears to be similar to the situation in media markets, there are some important differences.

First of all, competition for consumers takes place prior to them entering a particular store—that is, it is for the cards in their wallet. When they enter the store, card association rules prevent any further price signals being sent. If a store offers several credit card options, even if it faced different service charges from those respective associations, association rules—particularly, the no surcharge rule—prevent them using a price signal to induce a consumer to use one card over another. Consequently, price signals may be muted.

Second, this can only go so far as merchants have some choice as to whether to allow card association transactions or not. In principle, if a card association sets too high a service charge, the merchant can drop them. In practice, some card associations command large market shares. This gives them market power on the merchant side and, consequently, merchants may be constrained to adopt a card association. Indeed, if it turns out—as is naturally the case in this situation—that card association service charges are not too different, there is little point in merchants resisting another card. Their decision has little consequence for themselves, but adding them all up gives a card association long-term market power.

Finally, while a media outlet controls the balance of prices between advertisers and consumers, card associations can do this but there is a layer of direct interaction between merchants and their consumers. What is more, that interaction, namely the retail price, impacts on the collections the card association can make. Consequently, we need to worry about the

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degree of pass-through of card association pricing actions to the prices merchants charge their consumers. If there was no such pass-through, then credit card platforms would operate like media platforms. But if there was complete pass-through, it would be hard to characterize card associations as two-sided platforms at all.

With regard to credit card associations, we can get insight into the operation of price signals from a dramatic policy experiment in Australia. In normal markets, when you take a key price and reduce it substantially, economists would expect that this would have a dramatic effect on quantity. That, however, was not the experience in Australia when the Reserve Bank of Australian ("RBA") used new powers in 2003 to move Visa and MasterCard interchange fees from around 0.95 percent of the value of a transaction to just 0.5 percent. The evidence demonstrates that this change was virtually undetectable in any real variable to do with that industry, although it did impact on the balance of prices.

To understand this, it is useful to begin by reviewing the RBA reforms. First, in January 2003, it moved to eliminate the card association's "no surcharge" rule. Then in October 2003, the new interchange fee came into effect. That latter move had an immediate impact on merchants' service charges with acquirers passing on the full extent of the interchange fee reduction to retailers. However, there was no impact on the value of credit card purchases, the level of credit card debt, or the share of credit versus debit card transactions. Econometric analysis by Hayes[2] confirmed this. Moreover, that analysis demonstrated that credit card usage did vary with other economic factors including underlying interest rates in the expected direction. Put simply, if we did not know the reforms were actually taking place, you would not be able to observe it in the data.

Why was there no impact? There are a couple of possible explanations. First, it may be that the interchange fee was only one of a number of payments between acquirers and issuers and that, unobserved to analysts and the regulator, those payments were adjusted to net out the regulated cap. In the Australian case, however, that would have required millions of dollars to change hands between banks undetected. Moreover, it would not have led to a change on the balance of other prices. So this possibility does not stand up to closer scrutiny.

A second explanation, consistent with economic theory, is when surcharging is permitted (and it did occur in Australia most notably for online air ticket purchases and phone payments) or there is sufficient retail competition, the interchange fee is neutral (as I will explain further below). That is, the interchange fee reduction causes merchant fees to fall but issuer fees to rise (or loyalty schemes to be curtailed) but otherwise does not impact on the consumer's choice of payment instrument. However, even if that were the case, it is surprising that there was not some period of adjustment.

The RBA continues to regulate interchange fees but has signalled that it is unlikely to adjust them further. When it comes down to it, by capping the fee the industry has survived without disruption and the RBA has ensured that rising interchange fees and associated problems as has occurred in the United States will be avoided. That said, it may interest non-Australians to learn that the previous interchange fee was set in the late 1970s and was never changed despite the dramatic changes in the industry that occurred over the next two and a half decades. If there was any country without a credit card antitrust problem it was probably Australia.

[2] Richard Hayes, *Is Price Regulation of Payment Card Associations Effective? Evidence from a Dramatic Policy Experiment*, (2010), *available at* SSRN: http://ssrn.com/abstract=1546869.

The Australian experience tells us that interventions to regulate interchange fees are probably not as important as ones that might deal with other card association rules or generic competition. But it also tells us that such interventions are unlikely to have dramatic consequences for the industry on the choice of payment instruments.

To understand those rules, consider the "no surcharge rule." That rule prevents a merchant who accepts card transactions from charging a "point of sale" premium to consumers who use a card rather than using cash or checks. What is not generally recognized, however, is that there is a relationship between concerns about the interchange fee and such rules. From the perspective of economics, if you deal with no surcharge rules (by eliminating them) there is a diminished and perhaps non-existent case for regulating interchange fees.

To see this, let's start with the interchange fee concern. A higher fee means a higher charge imposed on merchants. Not surprisingly, they would prefer those charges to be lower and so card associations will recognize that increase interchange fees may decrease card acceptance. But, as noted above, there is a flip-side. Those high interchange fees are an inducement to card issuers to get more cards issued and used. Hence, the proliferation of solicitations and reward programs as interchange fees have risen. Those consumers then become the marketing department of card associations with respect to merchants, putting pressure on them to accept cards despite the high fees.

Now merchants may be able to compensate in highly competitive markets by not accepting cards and offering lower prices to consumers. But if retail markets cannot separate payments with different retailers specializing in card or cash, there is a problem. Retailers who face both cash and card customers must charge them the same amount by virtue of the no surcharge rule. That means that cash customers must effectively cross subsidize the cost to merchants of accepting cards. This leads to numerous inefficiencies including that consumers may be over-selecting expensive cards rather than other instruments. It also leads to what is termed a "competitive bottleneck" whereby competition cannot work to bring value to consumers.

One response to this is to regulate or cap interchange fees. That would mitigate the problem but would also bring with it the costs of regulation. The alternative would be to see if you could restore competitive structure to the payments industry by achieving payment separation another way. Specifically, if surcharges are permitted then merchants would face strong incentives to pass on the direct costs of card usage to card users. Consumers would then have to weigh whether those additional charges were really worth the other benefits they were getting from card use. But the point is that where previously there was no cost pass-through to the right consumers (as opposed to the pool of them), allowing surcharges ensures that happens.

This means that card associations face an additional cost if they increase interchange fees, that consumers will simply not use cards at the point of sale and save their retailers those costs. One might think that this would make the card association's management and negotiation over interchange fees more complex. However, as Gans & King found, permitting surcharging makes the interchange fee neutral.[3] Put simply, changing it through association choice or through regulation impacts on prices but not on the total level of card transactions or mix of payment

[3] Joshua S. Gans & Stephen P. King, *The Neutrality of Interchange Fees in Payment Systems*, 3(1) TOPICS IN ECON. ANALYSIS & POL'Y, Article 1, (2003), *available at* http://www.bepress.com/bejeap/topics/vol3/iss1/art1/.

instruments. This makes us wonder why the Reserve Bank of Australia chose both to eliminate the no surcharge rule and to regulate interchange fees.

In the United States, the Durbin amendment proposes to cap the already high interchange fees charged by card associations and moves somewhat to eliminate the "no surcharge rule." Specifically, merchants will be able to charge more for credit cards over, say, cash or checks but will have limited ability to set different charges among cards. As I noted earlier, this mutes the price signals at the point of sales and can lead to inefficiencies. In that context, the interchange fee cap may have some real effect; although, I would also note that retail competition is stronger in the United States than in Australia.