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The Impact of Drastic Reductions in Interchange Fees on Payments Innovation

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A famous American philosopher by the name of Yogi Berra once said that it's tough to make predictions—especially about the future. And of course any economist worth his salt knows that you should never make forecasts that can be disproved in your own lifetime. Nevertheless, I'm going to spend the next few minutes making some predictions about how imposing price caps on interchange fees will affect payments innovation.

The price caps that are being implemented or proposed around the world aren't just shaving a few cents off of interchange fees. The Reserve Bank of Australia reduced credit card interchange fees by about 80 percent; in the US, the Federal Reserve Board has proposed reductions of as much as 84 percent—we'll know the final numbers soon; and the European Commission's settlements with MasterCard and Visa have resulted in reductions of about 60 percent so far. Those aren't just haircuts.

In fact, these drastic reductions will turn the business model for payment cards on its head. When the regulators cap fees paid

by merchants, the payment card schemes have only one other place to look for revenue and profits – and that's the consumer. Now, of course, looking mainly to the merchant to fund their activities is what got them into trouble with regulators in the first place—merchants have complained bitterly about paying these fees.

But, this inversion of the business model—from merchant pays to consumer pays—isn't only a matter of how profits are derived. It is likely to have a significant effect on innovation in this sector. Let me now walk you through the business model mechanics of payment cards to help you understand why I believe flipping to a consumer pays model will reduce investment and innovation.

Ever since their introduction some 60 years ago, consumers have generally gotten a pretty good deal on payment cards. The mother of all payment cards is the Diners Club Card. This innovation was first introduced in 1950 in Manhattan. Diners Club signed up a dozen or so restaurants and a few hundred cardholders at the start. That was the first time people could use the same card at lots of independent merchants, defer payment until sometime

later, and get a single monthly bill. This was the big bang. Everything since has grown from these humble beginnings.

Diners Club charged the restaurants a 7 percent commission for letting consumers pull out that card instead of using cash or checks. Consumers ended up paying a small annual fee, but that cost was pretty much offset by the fact that they didn't have to pay right away and so got a couple of weeks of free float when using the card to pay.

That's essentially the same business model that most payment schemes, most everywhere, have adopted ever since. There are exceptions of course. Sometimes the merchant doesn't pay. Or doesn't pay much. Sometimes the merchant even gets paid. But usually the merchant not only pays, but is the main source of revenue, since consumers usually get a break.

Generally consumers don't pay to make transactions, don't pay much for the card, and especially in the US, even get rewarded for using them. There are some nuances to this and I don't want to push the "consumer gets it for free" point too far. Issuers, of course, also make money from extending credit, which is bundled

in with payments for credit cards. Banks sometimes charge for checking accounts that include debit cards and so forth. But, by and large, the pricing balance in the payments card industry has historically been tipped towards the merchant who pays the most and away from the consumer who pays the least.

This really shouldn't surprise us, as it isn't at all unusual. Payment networks act as an intermediary between consumers on the one side and merchants on the other. They help facilitate transactions between those two sides. Many other platforms act as intermediaries between merchants and consumers too. Shopping malls like Westland outside of Brussels provide a way for bringing shoppers and retailers together in one convenient location. E-commerce sites like Amazon do the same thing on the web. Advertising-supported media help merchants reach consumers. Those range from search engines to newspapers to free television. As far I can tell, almost all of the businesses that provide consumer-merchant intermediation services secure most of their revenue and profits from the merchant side. Shopping malls charge the shops not the shoppers, e-commerce sites do the same, and media mainly live off of the advertisers.

And, even new companies that have introduced innovative ways of bringing consumers to merchants together continue to rely on the merchant pays model. You've probably heard of Groupon. They are the daily deal guys for local businesses who, after three years in business, are floating an IPO with an eye popping $20 billion valuation. They charge merchants a 50% commission on the value of the deal they sell to consumers. And, then there's OpenTable, a free online service that helps consumers make online reservations at restaurants. They charge restaurants a dollar or a pound or a euro for patrons they send the restaurants' way.

The pricing balance tips toward merchants and away from consumers for all of these merchant-consumer intermediaries. The payment card industry seems pretty normal by comparison.

So, let's get back to interchange fee regulation. Drastic reductions in these fees invert the business model from merchant pays to consumer pays. For better or worse you'd expect that turning this business model on its head would have pretty significant effects on how companies, new and old, behave in this sector.

We already have a good data point. Last year the three major mobile carriers in the United States—AT&T, T-Mobile and Verizon Wireless—formed a joint venture to launch a mobile payments network. It was called ISIS. For those of you who've forgotten your ancient mythology, ISIS was the goddess of fertility. Just like any new payments network, ISIS had to get both consumers and merchants on board. Now, the goddess could probably have used her feminine charms to get things ignited, but the joint venture, being composed of mere mortals, decided that it would charge lower interchange fees than the incumbent networks to attract merchants to its network. Then the Fed announced that it was considering a reduction of debit card interchange fees by around 80 percent. ISIS would therefore be competing against very low cost debit cards, which merchants were already set up to take, and consumers already had in their wallets. That killed the plans for a new payment system. A couple of weeks ago ISIS announced that instead of competing against the incumbent card systems it was going to collaborate with them. One of its executives was quoted as saying, "As transaction fees were limited and things were changed, it kind of changed the business model."

Now, you might dismiss this example on the grounds that when the government fixes a problem of course it is going to reduce the need for entrepreneurs to fix it too. After all, keeping energy prices lower through regulation puts a damper on the market opportunities for selling heavy sweaters. In fact, I think the ISIS example shows how price caps can distort the market. Imposing price caps eliminates a tool new payment systems use for getting a critical mass of merchants and consumers. And price caps eliminate an important source of differentiation. They can therefore lead to less entry and innovation. Let me give you two old examples from the US.

The Discover Card entered the US market in 1985. They had a lot of cardholders already because they gave Discover Cards to the millions of people who already had Sears store cards. But they didn't have any merchants. So, to get merchants, they charged lower merchant fees than MasterCard, Visa, or American Express.

Now consider the counterfactual. Suppose there were low price caps on merchant fees in 1985. It isn't clear that Discover would have been able to make the economics works. To undercut the incumbents enough to get merchant acceptance, it might have

had to actually pay merchants to take their cards. But that would have been financially very risky. ISIS actually faced this problem and after looking at the numbers decided not to develop an independent payments network.

While Discover tilted pricing towards lower fees for merchants, PayPal tilted pricing towards higher fees for merchants. They started their online payment system in 1998. They decided not to charge consumers anything for using PayPal and they've stuck with that ever since. But merchants pay more for a PayPal transaction than they pay for a traditional card transaction. About 50-100 basis points more in the US.

Now consider the counterfactual. If PayPal hadn't been able to make as much money from merchants, it would have had to charge consumers. It isn't at all clear that consumers would have been willing to try a new online payment service if they had to pay for it. And especially when PayPal, in its early days, was all about buying low cost goods on eBay. Could PayPal have gotten off the ground with price caps on the merchant side? Not so clear.

The pricing structure is an important source of differentiation for the payment card industry. And with this differentiation comes innovation. Discover introduced cash-back rewards and other innovations for consumers. PayPal has just introduced an incredibly successful open software platform called PayPalX. They've gotten thousands of developers around the world working on innovations. And with differentiation comes competition. PayPal really has the traditional networks worried. Moreover, we know from the economics literature that differentiation is one of the main reasons positive feedback effects don't drive two-sided markets to monopoly.

The checking business in the US provides some additional insights into the effect of price caps on innovation. Two things happened in the early part of the 20th century in the US. The Federal Reserve Board outlawed interchange fees for checks. So merchants got the right to collect the face value of the check. At the same time, the Fed took over the clearing and settlement process for checks. That evolved into one of the most massively inefficient payment systems the world has ever known. It reached a crisis during 9/11. With planes grounded, there was no way to transport tons of paper checks for clearing. After that the Fed

started focusing on ways to at least provide for the transmission of digital images of checks.

But here's the innovation point. There was essentially no innovation in how checks were used for point of sale transactions for an entire century. Think about paying with a check at a department store in 1900 versus 2000. The main difference was that in 2000 the clerk could ask you for your driver's license. The Fed essentially eliminated most of the ways to make money off of checks so there were very limited incentives for innovation. The Fed focused mainly on figuring out ways to keep up with all the paper checks being written as the economy grew during the 20th century.

The checking experience points to another risk from price caps on interchange fees. It isn't clear that the payment card schemes are going to be able to charge as much for transactions with price caps on interchange fees. And transactions are, after all, what the payments business is all about. Price caps on interchange fees limit what the payment card industry can get on the merchant side. Consumers seem to be pretty resistant to transaction fees since they can pay with cash and checks pretty much for free,

thanks to the government, in most countries. In the US, it seems likely that with the price caps debit cards will just become loss leaders for checking accounts. If payment card schemes can't make money from charging for transactions then it is hard to see how they would have much incentive to invest in things that increase the velocity of transactions when those transactions have an effective price cap and won't generate profits.

Some basic economics predicts that price caps on the merchant side will reduce the overall level of innovation and investment in the payment business. The theory of two-sided markets finds that platforms tend to charge lower prices to the side of the business that has more elastic demand and higher prices to the side of the business that has more inelastic demand. The theory suggests that intermediaries between consumers and merchants have adopted the merchant-pays model because consumers have relatively elastic demand and merchants have relatively inelastic demand. That seems right looking at the situation of merchants and consumers. Payments cards help merchants get additional sales, the margin on retail sales is around 30 percent, and the cost of taking a payment card is a small portion of the overall cost. Economists have known since Alfred Marshall's work in the late

19th century that these circumstances imply inelastic demand. On the other hand, consumers have very low cost alternatives for paying and therefore have more elastic demand.

A price cap on the inelastic side of the market reduces total revenues and profits. The two-sided platform can't raise prices enough on the elastic side to recoup those losses. That has a direct implication for innovation. The modern theories of innovation find that incentives for investing in innovation tend to be proportional to industry revenue and profits. So we would expect a price cap on the merchant side of the payments business would result in an overall decline in investment and ultimately innovation.

Now I want to emphasize that I'm not predicting the death of innovation in the payments business. I'm just saying that under price caps there's probably going to be less than there would have been over the long run. Moreover, I think what we're actually going to see in the near term is a flurry of innovation. For the simple reason that when you blow up a business model, there's a huge demand to come up with other business models for making money. In the US everyone is scurrying around trying to figure out how to make money if debit card interchange fees get cut to the

bone. A lot of that thinking is being directed towards prepaid cards and credit cards that aren't subject to the caps. So, in effect, innovative efforts are being diverted from the regulated product to the unregulated ones. No big surprise there.

The card industry has been the primary source of payments innovation in the last 60 years. It's the main reason consumers and merchants worldwide have been moving to digital transactions rather than using cash and checks. It has created tremendous value. Virtually all the businesses behind this payments revolution have relied on the merchants pays model, or at least one that doesn't load all or most of the costs on to consumers. Regulators should be very cautious about killing a business model that has been so successful at shifting the world from paper to electrons.