
Externalities in Payment Card Networks

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The views expressed are those of the authors and do not represent the views of the Federal Reserve Bank of Chicago or the Federal Reserve System.

Introductory Remarks

- It is a pleasure and an honor to speak at this conference
- These are my own views and not those of the Federal Reserve Bank of Chicago or the Federal Reserve System
- I will provide an overview of the academic literature on payment cards with a focus on some of my own research

Key Questions

- What is the optimal structure of payment fees between consumers, merchants, and financial institutions?
- Will competition among payment providers, networks, or instruments improve consumer and merchant welfare and social welfare generally?
- What guidelines should policymakers follow when regulating payment services?

Move to Electronic Payments

- Many policymakers encourage electronic payments
 - ▶ Some city governments have mandated the acceptance of payment cards by taxis
 - ▶ IRS accepts payment cards but pays no merchant discount
 - ▶ Reduce tax evasion
 - ▶ Consumers and merchants benefit from transaction speed, convenience, and reduced loss from theft and unauthorized use
- Some authorities have questioned the pricing of payment cards

Two-Sided Markets

- Dance club in Acapulco (single women free, single men line and pay, couples both pay but no line)
- For payment instruments, both consumers and merchants consume simultaneously
- A market where end-users are unable to negotiate prices based on costs to participate and the price structure affects the total volume
- Often the sum of the fees paid by end users is ignored by academic models and focus is on the proportion each end user pays

Adoption and Usage Externalities

- Society is better off if total benefits exceed total costs
- A transfer between end-users may be socially optimal
- However, incentives on one network may affect usage of another, e.g. cash, check, or debit cards

Merchant Competition

- Question: Why can't most merchants refuse costly payment instruments?
- Answer: Customers will go to competitors (however, depends on consumer demand and merchant competition)
- Merchants may accept payment instruments to steal business from competitors but aggregate sales may stay constant
- Merchants may be willing to pay higher fees than socially optimal

Instrument-Contingent Pricing

- Most economic models find instrument-contingent pricing is socially efficient
- However, merchants may not set higher prices for certain types of payments even if they allowed to do so
- In some cases, merchants may set higher prices than their costs, e.g. Dutch debit cards (merchants may charge 4 times their cost)

Network and Issuer Competition

- Platform or network competition does not necessarily improve the price structure although the total price may decrease
- Competition may result in low or negative consumer fees if issuers compete too vigorously on the consumer side
- Intense issuer competition may tilt pricing against merchants

Extension of Credit

- Most of the payment card literature ignores the extension of credit but it is another source of surplus extraction for payment providers
- Credit allows consumers to make purchases and merchants to make sales that may not have otherwise occurred
- Non-liquidity constrained consumers may be enticed to use their credit cards with financial incentives subsidized from credit-constrained ones (who pays for these rewards?)
- There may be tradeoff between extending credit to less creditworthy consumers and the merchant discount fee

Honor-All-Cards Rules

- Different types of HAC rules
 - ▶ Honor all products—debit, credit, and prepaid
 - ▶ Honor all types of cards—low and high interchange fees
 - ▶ Honor all issuer of same type of card
- In jurisdictions, where rules have been removed, few merchants have accepted one and rejected the other
- Could also allow price differentiation across different types of cards

Cost-Based Approach and Innovation

- Cost-based approach may limit incentives to innovate
- Networks and issuers may require years to recoup investments in new products
- May not introduce new products and improve existing rails

Conclusion

- Payment card economics is complicated because of the interactions of a set of interdependent bilateral relationships
- No consensus among economists and policymakers on what constitutes an efficient fee structure for card-based payments
- Initial conditions and market specifics matters, no one size fits all