

Who Pays for Payments:

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Payments Aren't Free

- Cost estimates vary and depend on place and time, but there's no free lunch.

Average US Retailer's Cost of Payments in 2000

	Credit Cards	Signature Debit	Checks	PIN Debit	Cash
Average Cost per Transaction	\$.72	\$.72	\$.36	\$.34	\$.12

Source: Humphrey *et al.* (2003)

Three Major Questions

- **Who Determines Price?**
- **Who Pays?**
- **Who Decides Who Pays?**

How Payments Are Priced

- **Market via Competition**
 - Ideal in perfect world with perfect markets
 - Competition occurs on multiple levels
 - Inter-system competition (credit vs. debit, e.g.)
 - Intrasystem competition (MasterCard vs. Visa, e.g.)
 - Intra-brand competition (rewards cards vs. non-rewards cards, e.g.)
- **Monopolists/Cartels**
- **Regulation**
 - Direct price setting
 - Rules that shape dynamics of competition

Models of Payment Pricing

- **Private Network Competition**

- Reliance on competition to control prices and set quality standards
 - ❖ Credit Cards/Debit Cards
 - ❖ P2P
 - ❖ EBPP

- **Public-Private Competition**

- Subsidized federal involvement pushes down prices/sets quality standards (cf. GSEs in housing)
 - ❖ Checks
 - ❖ Wire Transfers
 - ❖ ACH

- **Public Utilities**

- Privately owned/subject to pricing and quality regulation
- Regulated monopoly (disgorgement of monopoly profits)
- For profit?
 - ❖ Postal Banking

Goals of Payment Pricing Policy

1. **Universally accepted payment system**

- Important social good
- Par clearing/identity of buyer and seller irrelevant

2. **Cost internalization**

- Costs are borne by users of payment system.
- No subsidization or externalities

• **Tension between these goals**

- Payment system might not be self-supporting, but social value of payment system may warrant subsidization
- Start-up problems for networked products.

Policy Questions (1)

- **Assume payment systems are important social goods. Is the vitality of any particular payment system or brand important?**
- **If a payment system is socially valuable enough that it should be subsidized, who decides on the level and distribution of the subsidy?**
 - Market
 - Private actors not subject to strong market pressure (cartels/monopolists)
 - Regulators

Policy Questions (2)

- **How long should a subsidy continue, and is it at the right level?**
 - Once the chicken-and-egg problem is solved for a new network, is a subsidy still needed?
- **Does the subsidy impede innovation and market entrance?**

Policy Questions (3)

- **Does the subsidy create negative social externalities?**
- **What is the net social welfare effect of payment system pricing?**
 - Debate should not be solely within the framework of the network and its participants.
 - If network is subsidized or creates externalities, net social welfare *must* be considered.

Interchange Subsidies (1)

- Merchants are forbidden from passing on the cost of credit card transactions (interchange/MDF).
- Merchants must therefore charge all consumers the same amount for payments regardless of payment medium.

Interchange Subsidies (2)

- **Issue isn't credit vs. cash**
 - Merchants generally like credit cards
 - Merchants have ability to discount for cash/cash equivalents.
 - But a discount is economically different from a surcharge—the framing matters
 - Merchants have ability to refuse credit cards altogether
- ***Issue is high-cost credit vs. low-cost credit***
 - No marginal benefit to most merchants from a rewards card transaction over a non-rewards card transaction
 - If not co-brand, rewards do not generate loyalty
 - Limited consumption ability (utilities, insurance, e.g.)
 - Honor All Cards & No Discrimination/No Surcharge are the problem here.

Interchange Subsidies (3)

- Since merchants must charge all consumers the same price for payments, either:
 1. merchant eats the cost of high cost transactions or
 2. merchant passes it along to *all* consumers.
- Limited empirical evidence indicates that a combination occurs, but that there is definitely subsidization
- **Result is that users of lower cost payment systems subsidize higher costs payment systems' users.**
 - Credit card users by non-card users
 - High cost credit card users by low cost credit card users
 - Likely varies by merchant.
- **Very regressive subsidy**
 - Unbanked are primarily poor and use cash.

Interchange Externalities: Consumer Overleverage

- Consumers choose payments based on *net* cost-benefit analysis.
- Costs of all payment systems *to consumers* are the same.
 - Merchants are forbidden from passing on cost of credit card transactions (interchange/MDF).
 - Merchants must therefore charge all consumers the same amount.
- Card network rules make credit cards relatively more attractive to consumers (more benefits than other systems, same cost)

Consumer Overleverage (2)

- Card network rules make cards look more attractive than other payment options
- Result is overconsumption of credit cards as *payment* systems.
- Inevitable impact is overconsumption of credit cards as *credit* systems.
 - Law of large numbers says more transactions, more unintentional revolvers.
- End result: inefficient and socially deleterious card debt burdens for consumers
 - More bankruptcy filings
 - Limits ability to purchase new goods and services

Interchange Externalities:

2. Unsafe and Unsound Lending

- ***Interchange enables riskier lending***
 - To the extent that card issuers derive income from fees that do not correspond to credit risk, they are able to incur greater credit risk.
 - Interchange income does not involve consumer or merchant credit risk.
 - Interchange involves interbank credit risk, but is priced based on merchant
 - Interchange is often not refunded on chargebacks, and chargeback assessment compensates for refunded interchange.

Unsafe and Unsound Lending (2)

- Two scenarios with identical return on assets
- **Scenario 1: No interchange**
 - Card issuer has 100 in capital.
 - 10% gross yield from interest
 - **5% chargeoffs**
 - Return on Assets of 5%.
- **Scenario 2: Interchange**
 - Card issuer has 100 in capital.
 - 10% gross yield from interest
 - 1% gross yield from interchange
 - **6% chargeoffs (20% increase from scenario 1)**
 - Return on Assets of 5%.

Unsafe and Unsound Lending (3)

- Interchange revenue facilitates riskier lending.
- Lower credit standards allows for greater card penetration in market.
- Greater card penetration means more transactions, which produces greater interchange revenue.
- Result is a positive feedback loop for issuers, as long as increased interchange revenue offsets increased charge-offs.

Implications of Interchange Externalities

- Higher interchange revenue facilitates riskier lending.
- Lower credit standards allows for greater card penetration in market.
- Greater card penetration means more transactions, which produces greater interchange revenue.
- Result is a positive feedback loop for issuers, as long as increased interchange revenue offsets increased charge-offs.

Three Possible Solutions

- **Remove barriers to market pricing**
 - Ban network rules restricting pricing (Honor All Cards/No-Discrimination/No-Surcharge)
 - Prohibit or Tax Bundled Rewards Programs
- **Public-Private Competition model for card payments**
 - Federal Reserve entrance as a payment clearing network
 - At-cost public competition forces price efficiency in market
 - Public competition forces creates product quality baseline
- **Public Utility model for card payments**
 - Regulated rates
 - Regulated terms and products