

Comments on: Interchange Fees, Access Pricing and Sub-Acquirers in Payment Markets

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Changes in the Payment System

Massive growth of credit and debit cards in payments relative to cash

- ▶ Usually, no differential prices for card or cash users
- ▶ Therefore, implicit transfer to credit card users from non-card
- ▶ But of course, cards are more convenient, etc

The regulator might want to regulate this market:

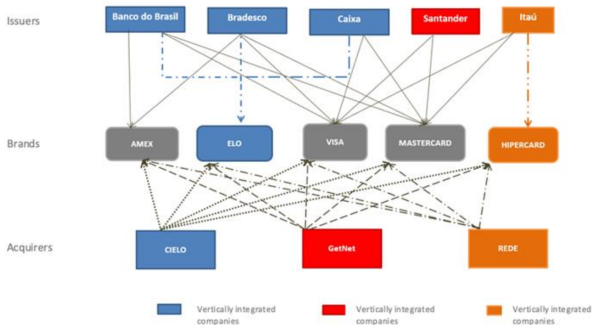
- ▶ Highly concentrated, network externalities, vertical integration

Key Actors in a Card Transaction

In a card transaction (**two-sided market**), the **key actors are:**

1. **On one side:** **The merchant**, who accepts the card as a means of payment
2. **On the other:** **the consumer** who possesses a card issued by a bank or a non-bank financial institution
3. **The intermediary:** **the acquirer** process the payment with that card to the merchant
 - ▶ They are typically a member of a card network
 - ▶ Facilitate credit and debit card transactions, connecting merchants with card networks
 - ▶ Manage settlements and assume responsibility for transactions

Vertical Relations in the Brazilian Payment Card Industry

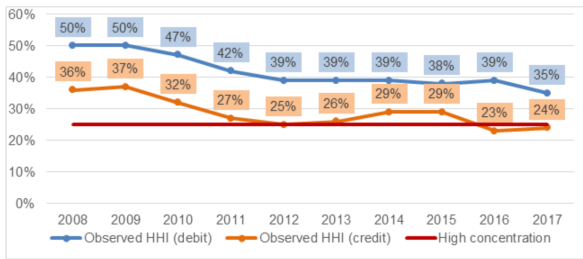


Source: Prepared by the Department of Economic Studies (DEE)

Acquirer-Card Relationships

- ▶ Merchants required multiple contracts to operate with different card brands
- ▶ Contracts made with acquirers, not directly with card brands
- ▶ In Brazil, until 2010 **no interoperability** on the acquirer side: Visa-net (Cielo) and Redecard (Rede) held exclusionary agreements with the card brands Visa and Mastercard, respectively
- ▶ In Uruguay, “multi-acquiring” process started only in Sept. 2022

The HHI of Acquirers in Brazil—Debit and Credit Cards



*The red line indicates the value of HHI (0.25). Markets with an HHI higher than 0.25 are classified as highly concentrated markets⁶.

Source: Central Bank of Brazil - Prepared by the Department of Economic Studies (DEE)

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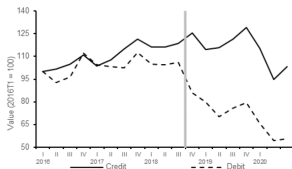


Fig. 1. Mean real interchange fee revenues per card

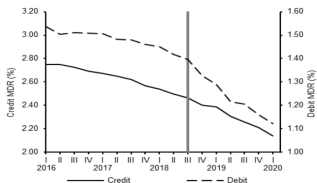


Fig. 2. Mean market MDR by function

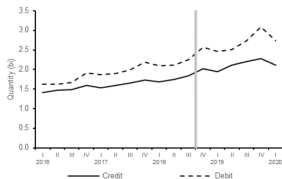


Fig. 4. Quantity of transactions by function

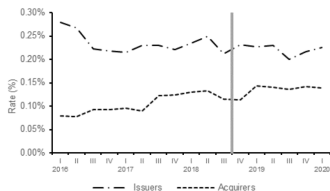


Fig. 5. Scheme fees by participant's role

Sub-Acquirers

- ▶ They play similar roles as acquirers
- ▶ Unlike acquirers (and issuers), sub-acquirers are not members of the card networks
- ▶ They process the payment usually at low cost and with multiple card brands
- ▶ They are an intermediary player between acquirers and merchants

Point: How this market of acquirers/sub-acquirers should be regulated? [This is the question of this paper](#)

The Model

Six agents:

1. Consumers: Trans. fee $p_b = c_b - a + m_I$, Benefit of card $\tilde{b}_b \sim H(b)$; Paying with card $\tilde{b}_b > p_b$
2. Merchants: Benefit of card $b_s^{SA} > b_s^A$; Discount rate: $p_s^A = c_s^A + a + m_A^D$,
3. Card network: Sets the interchange fee a
4. Issuers: Set the cardholder price p_b
5. Acquirers: Set the access fee f to be paid by sub-acquirers at cost c_e ; and merchant discount rate p_s^A
6. **Sub-Acquires**: Decide to enter or not and set and merchant discount rate p_s^{SA}

Model Description

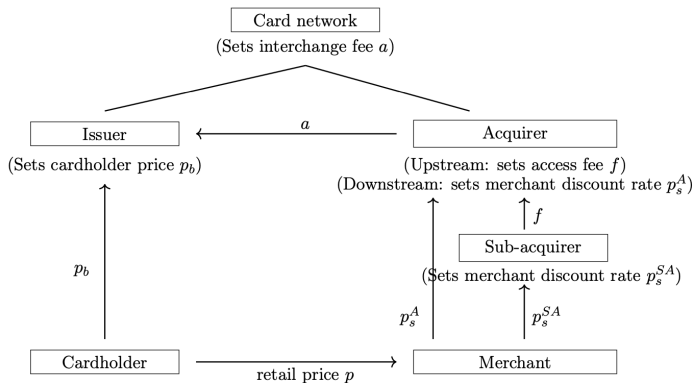


Figure 2: Four-party payment scheme with sub-acquirer

Some Results

1. **Prop. 1:** Acquirer will allow entry of sub-acquirers if it creates efficiency gains that can be extracted through the access fee.

$$(b_s^{SA} - b_s^A) + (c_s^A - c_s^{SA}) - c_e = \Delta b_s + \Delta c_s - c_e > m_A^D,$$

$$\Delta - c_e > m_A^D \geq 0$$

2. **Prop. 2:** Entry is socially optimal if and only if

$$\Delta - c_e > 0.$$

Sub-Acquirer entry efficiency gains > the cost of providing access

Point: The regulator can increase welfare surplus by setting an access charge

3. When operating in separated markets, then acquirers have no incentive to deter entry

Comments:

1. I am not an IO person, so I learnt and enjoyed reading the paper
2. For a general audience, it will be nice to have more empirical narratives and examples
3. Connect the model with some cases to understand whether regulators could improve the market—Matching transaction fees, MDR,...
4. Connect the model to understand welfare gains of regulatory changes
 - ▶ 2022 Central Bank of Uruguay (BCU) regulatory change from an exclusive to a non-exclusive relationship between acquirers and cards
 - ▶ 2018 Central Bank of Brazil regulatory change establishing a cap on interchange fees charged on debit card transactions (de Castro et al, 2023)

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