Application of the Tourist Test to Colombian Merchants

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In Colombia more than half of merchants accepting cards use dissuasive strategies to incentivize cash payments (e.g., cash discounts and minimum transaction limits for cards).

Authors measure the degree of mismatch between market and optimal merchant service costs (MSC) that acquirers charge to merchants, using the “Tourist/Merchant Indifference Test” (MIT) (Rochet & Tirole, 2011: MSC making merchants indifferent between being paid in cash or cards in the context of a sporadic consumer like a tourist is also socially optimal).

Based on a merchant cost survey performed by the Colombian central bank in 2018Q4 (AA & BG, 2020), apply two alternative methodologies:

- accounting/arithmetic estimation of the MIT MSC based on the variable costs as stated by participants
- econometric approximation based on the estimation of cost functions for each payment instrument

Note: MIF: merchant interchange fee; NAF: network access fee; AM: acquirer margin; MSC: merchant service charge; MIT: merchant indifference test.

Main findings

- At retail transaction size, the marginal cost of cash is lower than those of either debit or credit cards, implying a negative MIT MSC
  ⇒ merchants would prefer cash rather than cards at any positive MSC

- For higher transaction values MIT MSC varies from “up to 0.22%” to “up to 0.86%” (in a counterfactual medium-term horizon with a less cash dependent retail sector the MIT MSC would be “up to 0.40%”)

These figures are considerably lower than the average MSC charged by the industry.
MIT MSC varies substantially depending on the payment cost structure of merchants (e.g., scale of payment volumes and values processed, relative participation of cash and card payments in their sales, average transaction value).

Given such dispersion, a regulation based on an average price cap would allow the card industry to accommodate different MSC depending on merchants’ cost structures.
Many strengths

- Very detailed merchant-level data
- Comprehensive evaluation by transaction size and merchant category
- Very clear representation of the results
- Reasonable results (estimated “optimal” level for capping fees in a future with less cash compatible with other level set in other advanced economies, i.e. EU Interchange Fee Regulation)
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A few weaknesses

- Low goodness-of-fit in the regression analysis
- No strong controls for possible geographic and economic sector effects
- Not clear, at least to me, results on MIT MIF
Suggestions

- More controls (e.g., fixed effects) ⇒ more robust estimates
  - reduce possible omitted variable bias
  - (also) improve goodness-of-fit
- Simultaneous estimation for cash and cards (SURE?)
- Panel estimation, whenever possible
- Indicators of payment habits/substitution between payment instruments capturing (to a certain extent) consumers’ preferences
Thanks!

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