Comments on "How Do You Pay? The Role of Incentives at the Point-of-Sale" by Arango, Huynh and Sabetti

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Contributions

- Rich data on Canadian consumers payment behavior:
  - ➢ volume and value of transactions by payment method
  - ➢ demographics
  - ➢ perceptions
  - ➢ rewards
- Contribution to exiting literature:
  - ➢ combines longer-term survey with 3-day diary survey
  - ➢ extensive set of variables
  - ➢ matched name on card with specific rewards program
  - ➢ estimate relationship between value of rewards and credit use
  - ➢ importance of payment attributes in affecting payment behavior
- Nice exposition of results: Figures show how relaxing a single constraint (e.g., no fee or no rewards) changes payment behavior

Canada versus the U.S.: Perceptions

- Effect of perceptions on payment behavior (2009 SCPC)

Probit: Adoption [a]

Characteristic	Checks	Credit	Debit	BAN	OBBP	Prepaid
Cost	-0.01	0.03***	0.22***	0.08**	0.29***	0.04
Security	0.01	0.01	0.06**	0.06***	0.14***	0.01
Convenience	-0.02	0.09***	0.26***	0.13***	0.36***	0.06*
Acceptance	0.00	0.06**	0.09**	0.05**	0.03	0.05

OLS/Heckman 2nd Stage: Percent Share of Number of Transactions

Characteristic	Cash	Checks	Credit	Debit	BAN	OBBP	Prepaid
Cost	0.02	0.05**	0.09***	0.06**	0.02**	0.03	0.01
Security	0.02***	0.02	0.01	0.03**	0.01	0.00	0.00
Convenience	0.05***	0.01	0.19***	0.18***	0.04***	0.03	0.01

* p < 0.10, ** p < 0.05, *** p < 0.01
[a] Marginal effects
Demographic controls not shown. Source:: 2009 Survey of Consumer Payment Choice

Canada versus the U.S.: Diary

- Number of transactions conducted with each payment method over the 3-day period (DCPC)

Payment Instrument	$0 – $9.99	$10 – $24.99	$25 – $49.99	$50+
Cash	68.4	44.8	24.3	19.9
Check	0.7	4.5	10.4	24.7
Debit	18.4	28.4	40.6	28.2
Credit	8.8	15.9	21.2	16.6
Prepaid	3.5	3.1	0.8	0.7
OBBP	0.0	3.3	1.9	7.8
BANP	0.2	0.0	0.7	2.0

Canada versus the U.S.: Credit Cards

- Revolving
  - Canada survey: 59% paid balance in full
  - SCPC (2009): 43.9% paid balance in full every month in past 12 months, 47.6% paid balance in full last month
- Annual credit card fees
  - Canada survey: 38% pay annual credit card fee
  - U.S.: 10-20% of credit card plans annual fee (Bankrate.com)
- Interest rates on credit card plans
  - Canada survey: majority face interest rates of 15-20% or higher
  - U.S.: mean 13.2%, median 12.5% (CFM 2009)

Canada versus the U.S.: Rewards

- Canada survey: 71% credit card adopters have rewards
  - Share of CC payments for those with rewards is 3 times greater
- U.S.: 65.7% (CFM 2009) or 74.4% (SCPC 2009) credit card adopters have rewards
- Among credit card rewards receivers:
  - Cash back: 36.4%
  - Frequent flyer: 24.7%
  - Discounts: 21.5%
  - Other: 17.4%

Transactions by Rewards Adoption

Credit card transactions conducted on cards with and without rewards in the US

Variable	Rewards credit card holders	Non-rewards credit card holders
Average number of transactions per month	18.7	6.3
Average percent share of transactions per month	25.7	10.7

Source:: 2009 Survey of Consumer Payment Choice

Sampling and Data

- Show aggregate payment use for Canada for context. Are the survey results consistent with aggregate numbers?

- How is the sample selected?
  - Sample was "targeted" to be "nationally representative," but more details on sample selection process would be helpful
  - Compare to the Canadian census

- 40% of SQ respondents filled the diary → sample selection issues?

- Was SQ filled before or after DSI?
  - If mixed → can test whether the order affects responses

- Can you show the diary in an appendix?

Take advantage of survey data

- Add other payment instruments: checks and prepaid cards. Excluding some payment methods prevents you from estimating substitution across all the options.

- Relax restriction that must hold both credit and debit.
  - Estimate probability of *holding* payment instruments (extensive margin), especially for credit and debit.
  - Estimate use conditional on adoption.

- Use information on dollar value, not just probability of using.

- Why POS only? If include online transactions, can show substitution from cash to debit or credit.

Interpretation of results: Elasticities

- Very good information on different types of rewards
- But results based on a single cross-section cannot be interpreted as elasticities or substitution effects
  - ➢ cannot determine causality or dynamic effects from a cross-section
  - ➢ heterogeneity in rewards and corresponding heterogeneity in payment behavior could be due to self selection:

    heavy CC users will choose CC with good rewards, but that does not mean that raising rewards on another CC plan will increase CC spending

Interpretation of results: Payment behavior

- People select plans that are optimal for their payment habits, e.g., revolvers might choose lower interest rate and higher fee, convenience users might choose lower fee and higher rate.

  ➢ For example: "***Paying a credit card annual fee increases the probability of paying with credit by roughly five percent***" should be: "***Those consumers who hold a credit card with an annual fee have a 5-percent higher probability of paying with credit***."

  ➢ Or: "***Higher initial cash holdings leads to higher probability of paying with cash***," might instead be: "***Consumers who like to use cash carry more of it***."

Additional comments

- Not clear whether data are from SQ survey or from diary—be more specific how you construct your variables. What exactly is included in the regressions?

- Perceptions: for some of them 5 is best, for others 5 is worst. Might be easier for respondents if you make it consistent (e.g., 5 is always the best outcome).

- Table 5 (probability of choosing cash, debit and credit): are the probabilities statistically significantly different from each other? Some differences seem very small.

- Table 6 (perceived acceptance): do the perceptions of acceptance reflect reality? In the U.S., almost all merchants accept cards, even for very low-value payments.