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FDIC

Discussion of Panel 1: New Evidence on Co-Holding Puzzles

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The Outline

1. New evidence from the two papers.
2. Strength and weakness of bank data.
3. What might be the root cause of co-holding?
4. Some technical comments on their regressions.
5. My wishlist and conjecture of the root cause.
6. Policy discussion.

Two Papers: Findings from Objective Bank Data

The Co-Holding Puzzle: New Evidence from Transaction-Level Data
by *John Gathergood and Arna Olafsson* (2020) - **“PAPER 1”**

1. Co-holding is not severe (annualized median cost \$12).
2. Hard to explain co-holding with liquidity need, credit line risk, limited attention, shopper-saver model.
3. Suggest “mental accounting” or self-control as a factor.

Untangling the Credit Card Debt Puzzle
by *Erkki Vihriälä* (2020) - **“PAPER 2”**

1. Evidence of uncooperative behavior within couples.
2. Anchoring to minimum payments (with no liquidity problem)
Frequent min payments \Rightarrow more co-holding

Main Feature: Objective Bank Data

Paper 1: Financial aggregator app.

Daily frequency, transaction-level information from Icelandic banks.

Paper 2: Monthly data from a large Finnish bank.

Includes interest rates, housing value, etc.

Advantage:

- Very detailed bank-held asset/debt information.
- Objective income and expenditure measures.

Disadvantage: Limited personal data & non-bank financials

- Lack of ability measures such as education level, financial knowledge, cognitive and noncognitive abilities, and occupation. No psycho-social measures.
⇒ Difficult to examine (or control for) ability and psycho-social factors.
- Limited information on brokerage accounts (stock, funds).

What is the Root Cause of Co-holding?

Personal v.s. situational factors.

	Ability (personal)	Situational
Liquidity needs		✓
Self-control	✓	
Mental accounting	✓	
Credit line risk	?	✓
Shopper-saver	✓	?

What is the root cause? Root cause = Policy target.

- Lack of information.
- Lack of comprehension and education.
- Lack of income or liquidity.
- Heuristics and bounded rationality?

Some Technical Comments for Paper 1

1. Likelihood of starting co-holding:

- Significance levels with 3 million observations may not be very informative.
- Seemingly small economic magnitude of the effect: *e.g.* 0.23% more likely to start co-holding with temptation buying (FE model).
- Mostly unexplained variation: $R\text{-squared} = 0.003$.
- The on-set of co-holding is a transient variable whereas income/expenditure is relatively persistent. The change of income/expenditure may be more relevant for the on-set.
- Simultaneity (endogeneity) of co-holding and income (or expenditure)? What if cognitive ability influence both co-holding and income?

2. Sample selection bias? Households with “at least one deposit account and one overdraft line”

⇒ Opening overdraft lines may be an endogenous choice (alluding future co-holding).

Some Technical Comments for Paper 1 (Cont.)

3. “Plausibly, individuals might prefer to assign their gambling and temptation purchases to a separate (mental) account, aside from their regular expenditure.”
 - Can check whether gambling/temptation buying occurs in the overdraft accounts?
 - If so, gambling is highly costly. Is this consistent with the dual-self (shopper-saver within an individual) model or is it financial ignorance?
4. What determines the duration of co-holding once co-holding starts (individual level analysis)?

Some Technical Comments for Paper 2

1. Mortgage offer take-up regression for intra-household interaction:
 - Low deposit or high debt share \Rightarrow high mortgage offer take-up.
 - Est. sample = co-holding households only (why?).
 - What if the effects are similar among non-coholding couples?
I suspect that non-coholders are also uncooperative, but the effect size may be larger for co-holding couples?
2. Household switching from a single to a couple (or vice versa)
 \Rightarrow Statistically significant (and economically large) change in co-holding behavior?
Can we use the panel nature of the data to answer this question?

Some Technical Comments for Paper 2 (Cont.)

3. Is mortgage offer take-up rate similar for non-coholders?
 - If so, then “debt aversion” may drive their mortgage take-up behaviors.
 - However, co-holders seem to have no debt aversion.
 - Is there a more fundamental psychological factor that can explain both debt aversion and co-holding?
4. Intra-household interaction can imply either (1) cooperation (2) noncooperation (shopper-saver model). Study the relationship of cooperation/noncooperation with age-gap or education/income gap within the household.
5. Anchoring - making min payment and co-holding are simultaneously (endogenously) determined. What is the root cause of the anchoring? Information (education) or ability to comprehend the financial situation?

Current Challenges and the Wish List

1. What is causing the mental accounting? Information, education, or cognitive ability?
2. Use of bank data is not sufficient to separate these factors.
3. Ideally, we want to combine bank data, survey data, and government databases.
4. Realistically, might try to extract personal data in mortgage applications - education, credit score, occupation, income, etc.

My Conjecture

1. People understand that co-holding is costly, but just a little.
2. From the co-holder's perspective, the cost seems small enough to not care.
3. Mental accounting, self-control, minimum credit card payment.

“Slightly” sub-optimal choice is the optimal choice.
Mental cost $>$ monetary cost.

4. Root cause: Limited cognitive and noncognitive ability.
 - Less cognitive effort and heuristics (Simon, Tversky, and Kahneman).
 - Laziness and carelessness (non-Conscientiousness)

Missing deadlines.

Leaving dirty dishes & trash.

Missing classes.

Not checking billed amounts.

Losing umbrellas multiple times without regrets.

Impulsive shopping.

Policy Implications

1. Can we improve mental accounting by education?
2. Does inefficient mental accounting stem from misunderstanding, lack of financial literacy or more fundamental cognitive or noncognitive ability?
3. Laziness and carelessness (noncognitive ability)?
⇒ Enforce banks to notify consumers.
Would text messages help nudging to pay off overdraft balances?

Policy Implications (Cont.)

Libertarian Paternalism

4. Free overdraft protection (ODP) with linked accounts?

Expensive service fee = \$25-35 in the U.S.

- If not protected, need to pay \$35 or more (non-sufficient funds fee).
- Mental accounting may be psychologically beneficial.
- Nonetheless, co-holders may still demand insurance against overdraft.
- Default to free ODP program with opt-out option
⇒ Less profit for banks, but higher consumer welfare.

5. Other policy suggestions:

- Fernandes et al. (2014): Just-in-time education (early intervention has no lasting effect).
- Thaler (NYT, 2013): Rules of thumb + Easy and user-friendly system (easy to view the options and opt-out).
⇒ Less effective for co-holding & impulsive buyers ⇒ Default option is better.