

Entropy*

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October 15, 2021

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1 Introduction

Literature:

Muggleton et al. (2020) find that consumption entropy over categories correlates with financial distress.

Davenport et al. (2020) study the impact of COVID-19 on the spending and savings behaviour of MDB users.

Baker and Kueng (2021) summarises literature that uses mass financial transaction data to study household financial behaviour.

Becker (2017) finds that access to a fintech money management app increases first-time savings and savings account balances among 65,000 customers of a large European bank but that uptake is negatively correlated with financial sophistication.

Colby and Chapman (2013) has useful literature review on short-term savings and suggests that subgoals can increase willingness to forego short-amounts in the present because they move the reference point in a prospect-theory framework.

Paper:

Independent variable: entropy over categories and others

Outcome variables: first-time saving, average monthly savings

*This research was supported by Economic and Social Research Council grant number ES/V004867/1. WBS ethics code: E-414-01-20.

2 Data

2.1 Preprocessing

Duplicate transactions

2.2 Sample selection

Table 1: Sample selection

	Users	Accounts	Transactions	Value (£M)
Raw sample.	283	1,281	666,141	123.2
At least 6 months of data.	246	1,201	659,133	121.8
At least one current account.	234	1,156	642,665	119.6
At least 5 monthly debits totalling GBP200.	161	707	449,366	81.5
Income payments in 2/3 of all observed months.	119	560	338,016	64.0
Yearly incomes between 5k and 200k.	57	268	161,759	28.4
No more than 10 active accounts in any year.	55	218	146,110	24.3
Debits of no more than 100k in any month.	52	201	133,084	17.0
Current and savings account balances available.	26	95	69,440	8.6
Working-age.	21	77	57,527	6.2
Final sample.	21	77	57,527	6.2

Table 2: Sample selection

	Users	Accounts	Transactions	Value (£M)
Raw sample.	2,730	13,272	6,767,171	1,195.3
At least 6 months of data.	2,432	12,589	6,714,000	1,185.3
At least one current account.	2,304	12,234	6,516,526	1,162.9
At least 5 monthly debits totalling GBP200.	1,516	7,878	4,776,243	868.5
Income payments in 2/3 of all observed months.	1,105	5,900	3,499,222	651.5
Yearly incomes between 5k and 200k.	583	3,103	1,861,702	324.8
No more than 10 active accounts in any year.	538	2,312	1,585,314	236.6
Debits of no more than 100k in any month.	509	2,159	1,472,944	188.5
Current and savings account balances available.	266	1,041	771,901	100.6
Working-age.	220	858	673,277	85.8
Final sample.	220	858	673,277	85.8

Types of balances, from Becker (2017), who treats balance at end of each month as observations:

- Current account balance
- Debit balance (savings and current account balance)
- Pure savings (savings account balance only)
- Credit balance (loans and negative current account)
- Pure credit (loans only)

- Wealth held (debit - credit balance)

Figure 1: Distribution of user incomes

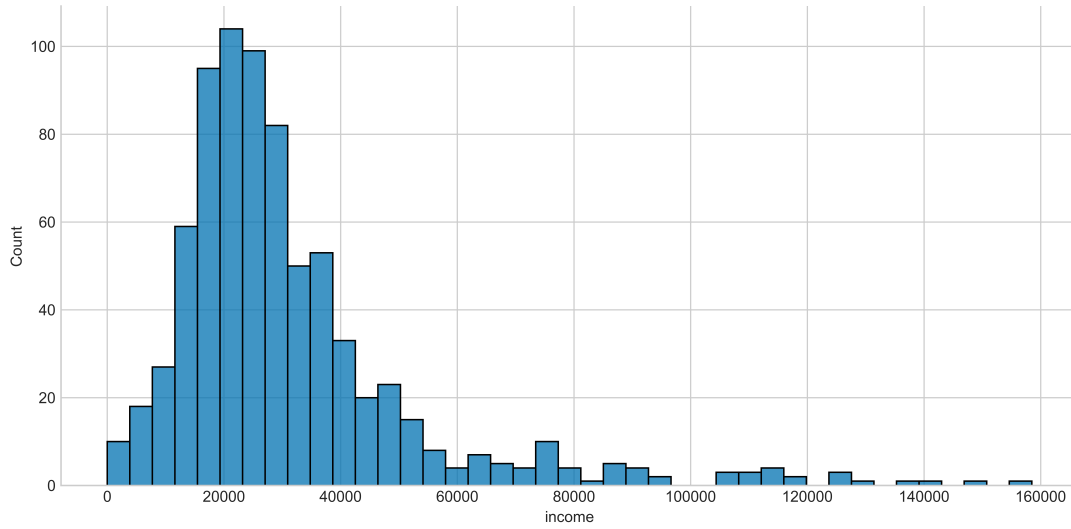
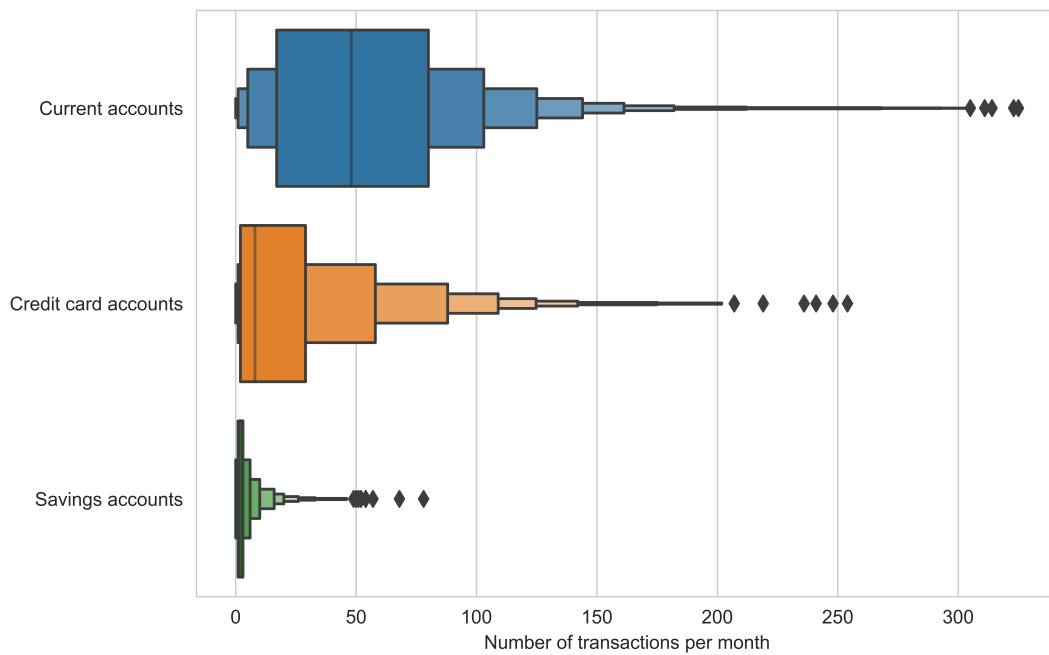


Figure 2: Monthly transactions by account type



Notes: Hello this is a note. Really. Totally. I mean it.

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