

Debit vs Credit:

A Study of Self-Control in Shopping
Behavior, Theory and Evidence

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Credit

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Debit

- 1998 – 2004
 - 10% annual growth

- 1998 – 2004
 - 22% annual growth
 - 1998: 28% of market
 - 2004: 45% of market
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Credit

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Debit

- Float
- Rewards
 - Cash Back
 - Airline Miles
 - Charitable Donation
- Convertible to Loan
- 5.25 Million locations

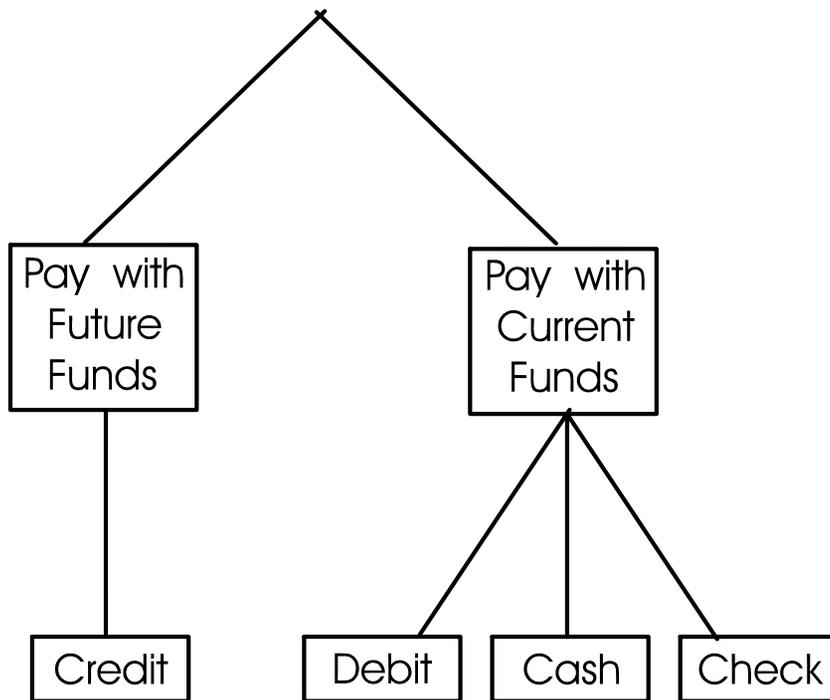
- No Float
 - Fees
 - 14% charge \$.10-\$2.00
 - 20% overdraft
 - Some Retailers Dislike
 - No Loan
 - 3.9 Million terminals
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Why Would Anyone Use Debit?

Why Do So Many Use Debit?

- Credit Constrained (Zinman 2005)
 - Convenience (Borzekowski, Kiser, Ahmed)
 - Restrain Spending (This Paper)
 - Lack of Self Control
 - 30% according to Zinman
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Payments Overview



- Pay Now
 - Cash
 - Check
 - Debit Card
- Pay Later
 - Credit Card

Outline

- ✓ Question – Why Use Debit?
 - Explaining Debit Use
 - Data
 - Evidence
 - Behavioral v Cost-based
-

Shopping

- Prices are variable
 - Purchase if prices are favorable
 - Variation in purchases

 - Expenditure varies month-to-month
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Budgeting

- Budgeting: requires effort
 - Due to variation spending this is not simple
 - Or use debit card
 - Cost is loss of float, flexibility, and rewards
 - Default: use intuition to estimate
 - maybe overspend, maybe underspend
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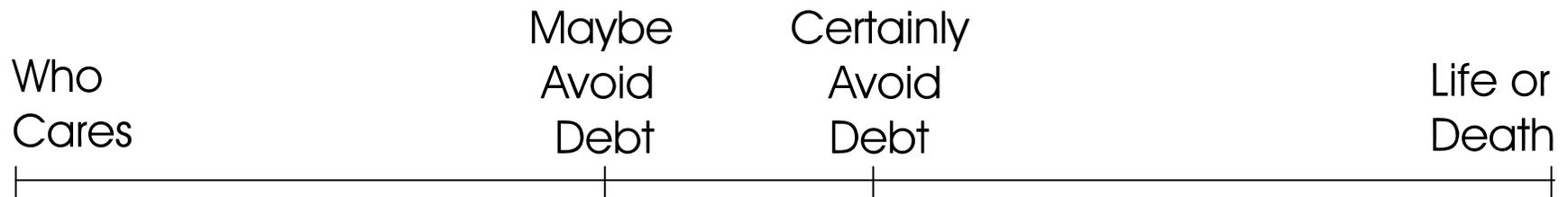
Card Choice

- Underspend: debit or credit, does not matter
- Overspend: credit leads to cycle of debt
- Debit: pay cost for sure
- Credit: go into debt only if overspend



Card Choice

- If debt grows large enough:
 - Confirm overspending
- Debit becomes more attractive



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Data

- Small Depository Institution
 - 2310 checking accounts
 - 3 month sample
 - All Debit Card Transactions
 - Credit Card Payments (if electronic)
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Data Definitions

- Debit User = more than 4 debit transactions
 - Credit User = one payment to credit card
 - Round Pmt = cc payment multiple of \$10
 - Same Pmt = two identical cc payments
 - Locations = number of ATM locations used
 - Income, Account Balance, Age, Gender
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Key Features

- Debit users have debt
 - Debit users are less disciplined
 - Debit users hold less cash
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Key Features: Debt

- Debit users have more debt
 - They discovered overspending by accumulating debt
 - Can not witness level of debt
 - Round payment
 - Same payment
 - Results confirm debit users have debt
-

Debit Users Paying Balances

	1a	1b	1c
Balance	-1.50 *	-1.49 *	-1.48 *
CC User	.082 †	.088 *	.072 †
Round Pmt	.036 *		.018
Same Pmt		.172 *	.134 †
Age	-.010 *	-.010 *	-.010 *
Male	-.043 †	.042	.043 †
Income	.020 *	.020 *	.020 *
Obs	2310	2310	2310

Key Features: Discipline

- Overspenders

- Spend frivolously
- More stores

- Underspenders

- Disciplined
- Less stores

- Do not see stores for credit user
 - See ATM withdrawals for both groups
 - ATM withdrawals should be correlated with use
 - Results confirm that debit users get around
-

Debit Users Get Around

	All Accts	Plastic Users	Credit Users	All Accts
Balance	-.069 *	-.012	-.377 *	-.130 †
Credit User	.068 *			Dep Var
Debit User	Dep Var	Dep Var	Dep Var	.084*
Locations	.286 *	.038 *	.162 *	.050
Age	-.0041*	-.0007	-.0026	-.0009
Male	-.015	.011	.035	-.007
Income	-.006	-.0034*	-.0004	.024 *
Obs	1488	1238	360	1488

Key Features: Cash Holding

- They use debit card to restrain spending
 - Maybe they also use their cash holding to restrain spending

 - Results confirm that debit users have
 - More ATM withdrawals
 - Smaller ATM withdrawals
-

Debit Users Get Around

	All Accts	Plastic Users	Credit Users	All Accts
Balance	-.056 †	-.0081	-.032 *	-.136 *
Credit User	.077 *			Dep Var
Debit User	Dep Var	Dep Var	Dep Var	.093 *
No. withdr	.0057 *	.0015 *	.0040 †	.0011
Withdr size	-.264 †	-.035	-.185	-.087
Age	.0044 *	.0006	-.0030	-.0012
Female	-.025	.0008	.0003	-.018
Income	-.0013	-.0046 †	.0013	.025 *
Obs	1488	1238	360	1488

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Behavioral v Cost-Based

■ Cost-Based

- People respond to price incentives
 - Credit constrained
 - Balance revolvers
- Zinman (2005), Borzekowski & Kiser (2006)

■ Behavioral

- People are not rational
 - People know they can't afford it, but buy anyway
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Spending Control–Survey Evidence

- Borzekowski, Kiser, Ahmed
 - Table 4
- Debit and Credit are Similar
 - Time, Convenience, Tracking
- Money
 - Likely to avoid ATM fees
- Acceptance
 - Credit is better
- Open Ended Survey

Why use debit	%
Time	14.1
Convenience	88.1
Tracking	10.2
Money	11.7
Restraint	5.8
Acceptance	4.9

Spending Control – Survey Evidence

- Borzekowski, Kiser, Ahmed:
 - Debit for Spending Control 5.8% (39)
 - Debit is Alternative to Credit 24.7% (166)
 - Accounted for those alternative not mentioned
 - 23.5% of people saying they use debit card as alternative to credit cite spending control
 - **Not** Insignificant
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Conclusion

- Debit Cards are used to constrain spending
 - Evidence
 - Debit card users do have credit card debt
 - Debit card users seem to be free spenders
 - Debit users make more, smaller ATM withdr.
 - It could be perfectly rational to do this
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