Behavioral Economics & Consumer Financial Empowerment

National Federation of Community Development Credit Unions, Annual Conference
Detroit, May 15, 2014
Michael S. Barr
University of Michigan Law School
msbarr@umich.edu
Classical model

Decision → Action → Outcome
It took forever to find those perfect shades.

Fortunately, it only takes 15 minutes to see how much you could SAVE WITH GEICO.

Aviators. Polarized. Rimless. Wraparound. You tried on a million pairs and, like, you got it right. Fortunately, it only takes 15 minutes to get your insurance right with GEICO. You could slip on some big savings that will make you feel great, and make your wallet look amazing.

Get a free quote.

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1-800-947-AUTO (2866)
or call your local GEICO agent
Behavioral Economics

- Information vs understanding
- Intention vs. behavior
- Predictable biases
  - Misperception
  - Misforecasting
  - Myopia
  - Decisional conflict
  - Mental accounting
  - Attention constraints, local focus, information overload
  - Procrastination, inertia

- Context & Institutions
  - Defaults, framing, hassle factors
  - Behavior
  - Planning

*See Barr, Mullainathan & Shafir, The Case for Behaviorally Informed Regulation (2009)
- Misperception
- Misforecasting
- Myopia
- Decisional conflict
- Context
- Present bias
- Poor monitoring
- Mental accounting
- Attention constraints
- Information overload
- Procrastination
- Misperception
- **Misforecasting**
- Myopia
- Decisional conflict
- Context
- Present bias
- Poor monitoring
- Mental accounting
- Attention constraints
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- Procrastination
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- Misforecasting
- **Myopia**
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- **Mental accounting**
- Attention constraints
- Information overload
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- Myopia
- **Decisional conflict**
- Context
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- Poor monitoring
- Mental accounting
- Attention constraints
- Information overload
- Procrastination
- Misperception
- Misforecasting
- Myopia
- Decisional conflict

**Context**

- Present bias
- Poor monitoring
- Mental accounting
- Attention constraints
- Information overload
- Procrastination

http://feedbacksolutions.wordpress.com/2012/02/02/improving-healthy-food-beverage-choices-through-choice-architecture/
- Misperception
- Misforecasting
- Myopia
- Decisional conflict
- Context

- **Present bias**
- Poor monitoring
- Mental accounting
- Attention constraints
- Information overload
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- Misperception
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- **Poor monitoring**
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- Procrastination
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**Attention constraints**
- Information overload
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- Misforecasting
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- Attention constraints

- Information overload
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- Misperception
- Misforecasting
- Myopia
- Decisional conflict
- Context
- Present bias
- Poor monitoring
- Mental accounting
- Attention constraints
- Information overload
- **Procrastination**
Behavioral model

- Frame
- Bias

Decision

Action
- Attention
- Context

Outcome
- Hassle
- Inertia
No Slack

- Financial lives of low-income households
- No slack means small problems mount
- Need for financial stability
- Emergency savings
- Paying to save
- Innovation, Education, Protection
Market Structure

- Competitive markets
- When does behavioral agent matter more? For example:
  - Shrouding
    - Mortgage contracts
  - Contingent payments
    - Credit card late fees, debit overdraft
    - Cell phone contracts with penalty rates over min.
  - Agency costs/side-payments/low-monitoring
    - Mortgage brokers
    - Securities brokers
  - Sometimes, bundling purchase & loan reduces debt discipline
    - Buy here, Pay here Used Car Dealers/Lenders
    - Rent to Own
  - High Switching Costs (e.g., from bill pay)
Price Shrouding

Mortgage Sale

2.75%*  
5 Year Fixed Mortgage Rate

Only April 15 until June 14

5 Month Introductory
Buy here/pay here
The firm & the individual
THE CRISIS
THREE LEGGED STOOL

Reform

Financial Education

Financial Products

Consumer Protection
Financial Education

Financial Regulation: what values?

- Simplicity
- Transparency
- Honesty
- Fairness
- Trust
- Empowerment
- Performance, cost, resiliency

How can financial regulation better serve households and the economy?
CARD Act

- Disclosure enhancements
- Debiasing
  - Fees (misforecasting)
  - Minimum payments (misperceiving)
- Opt-in for over-limit transactions
- Excess payments pay off highest rate first
- Reasonable time to pay/stable due dates
- Bans on double-cycle billing
- Bans on late fee traps, retroactive rate hikes
- Penalty fee “reasonable & proportional”
ACCOUNT SUMMARY

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous Balance</td>
<td>$663.57</td>
</tr>
<tr>
<td>Payment, Credits</td>
<td>-$823.88</td>
</tr>
<tr>
<td>Purchases</td>
<td>+$985.15</td>
</tr>
<tr>
<td>New Balance</td>
<td>$824.84</td>
</tr>
</tbody>
</table>

Opening/Closing Date: 04/19/10 - 05/18/10
Credit Access Line: $20,000
Available Credit: $19,175
Cash Access Line: $4,000
Available for Cash: $4,000

PAYMENT INFORMATION

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Balance</td>
<td>$824.84</td>
</tr>
<tr>
<td>Payment Due Date</td>
<td>06/15/10</td>
</tr>
<tr>
<td>Minimum Payment Due</td>
<td>$16.00</td>
</tr>
</tbody>
</table>

Late Payment Warning: If we do not receive your minimum payment by the date listed above, you may have to pay up to a $39.00 late fee and your APRs will be subject to increase to a maximum Penalty APR of 29.99%.

Minimum Payment Warning: If you make only the minimum payment each period, you will pay more in interest and it will take you longer to pay off your balance. For example:

<table>
<thead>
<tr>
<th>If you make no additional charges using this card and each month you pay...</th>
<th>You will pay off the balance shown on this statement in about...</th>
<th>And you will end up paying an estimated total of...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only the minimum payment</td>
<td>11 years</td>
<td>$1,444</td>
</tr>
<tr>
<td>$28</td>
<td>3 years</td>
<td>$1,005 (Savings=$439)</td>
</tr>
</tbody>
</table>

If you would like information about credit counseling services, call 1-866-797-2885.
Dodd-Frank Act

- Mortgage regulation
  - Mortgage broker regulation
    - YSPs
    - Ability to pay
    - Ban on steering
    - Licensing, registration
  - Enhanced disclosures
  - Escrow requirements
  - “Plain vanilla” sticky default
    - QRM Risk Retention Rule
    - QM Ability to Pay Rule
    - GSE Credit Box
# MORTGAGE RULES

## Truth in Lending Disclosure Statement

**Lender:** Ficus Bank  
**Date:** 09/14/2012  
**Loan Case No.:** 123456789  
**Borrowers:** John A. and Mary B.  
**Address:** 123 Anywhere Street, Anytown, ST 12345  
**Property:** 456 Somewhere Avenue, Anytown, ST 12345

### Interest Rate and Payment Summary:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>First 78 Payments</td>
<td>$751.78</td>
</tr>
<tr>
<td>Last Payment</td>
<td>$751.78</td>
</tr>
<tr>
<td>Principal and Interest</td>
<td>$751.78</td>
</tr>
<tr>
<td>Mortgage Insurance</td>
<td>$2.35</td>
</tr>
<tr>
<td>Property Tax and Insurance (Escrow)</td>
<td>$206.13</td>
</tr>
<tr>
<td>Total Monthly Payment</td>
<td>$1,050.26</td>
</tr>
</tbody>
</table>

### Closing Disclosure

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan Amount</td>
<td>$162,000</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>3.875%</td>
</tr>
<tr>
<td>Monthly Principal &amp; Interest</td>
<td>$761.78</td>
</tr>
<tr>
<td>Prepayment Penalty</td>
<td>Yes - As high as $3,240 if you pay off the loan during the first 2 years</td>
</tr>
<tr>
<td>Balloon Payment</td>
<td>No</td>
</tr>
</tbody>
</table>

### Projected Payments

<table>
<thead>
<tr>
<th>Description</th>
<th>Years 1-7</th>
<th>Years 8-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal &amp; Interest</td>
<td>$761.78</td>
<td>$761.78</td>
</tr>
<tr>
<td>Mortgage Insurance</td>
<td>+ 82.35</td>
<td>+ —</td>
</tr>
<tr>
<td>Estimated Escrow</td>
<td>+ 206.13</td>
<td>+ 206.13</td>
</tr>
<tr>
<td>Total Monthly Payment</td>
<td>$1,050.26</td>
<td>$967.91</td>
</tr>
</tbody>
</table>

### Costs at Closing

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing Costs</td>
<td>$9,712.10</td>
</tr>
<tr>
<td>Cash to Close</td>
<td>$14,147.26</td>
</tr>
</tbody>
</table>
Dodd-Frank Act

• CFPB
  – Unfair, abusive, deceptive acts/practices
  – Consumer protection rules
  – Supervision
  – Enforcement
  – Information, Education, Counseling, Complaints
  – Empirical testing/safe harbors for pilots
  – Disclosure
Behavorially Informed Regulation

- Financial regulation, education and private sector innovation needs to take account of behavioral economic insights.

- Psychology & industrial organization.
  - Individual behavior
  - Market context
  - Regulatory response

- Behaviorally informed equilibrium model of intersection of firms and individuals

- Policies (regulation, access, technology)
Financial innovation: what values?

- Simplicity
- Transparency
- Honesty
- Fairness
- Trust
- Empowerment
- Performance, cost, resiliency

How can innovation better serve households and the economy?
Financial innovation: what values?

- Disclosure can (mistakenly) increase trust
  - Behaviorally Informed Regulation (Barr Mullainathan & Shafir 2007)
  - The Dirt on Coming Clean (Cain et al. 2005)
- Smart & Dynamic Disclosure
- Empowering consumers
- Trust is earned
- Social networks
# Detroit LMI Households: Conjoint Analysis of Payment Cards

**Requirements**
- 9% 6% 2%

**Card Type**
- 17% 8% 11%

**Lost Card Protection**
- 24% 19% 11%

**Deposits**
- 6% 13% 25%

**Savings**
- 7% 9% 3%

**Bill Payment**
- 6% 3% 3%

**Get Cash**
- 1% 4% 2%

**Cash Access Fees**
- 7% 2% 6%

**Monthly Fees**
- 23% 35% 36%

## Relative Attribute Importance

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>female</td>
<td>female</td>
<td>male</td>
</tr>
<tr>
<td></td>
<td>black</td>
<td>black</td>
<td>not black</td>
</tr>
<tr>
<td>$20K income</td>
<td>age 40</td>
<td>$20K income</td>
<td>$50K income</td>
</tr>
<tr>
<td>unbanked</td>
<td>low-income tract</td>
<td>banked</td>
<td>moderate-income tract</td>
</tr>
<tr>
<td>age 40</td>
<td>moderate-income tract</td>
<td>age 40</td>
<td>moderate-income tract</td>
</tr>
<tr>
<td>Requirements</td>
<td>9%</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>Card Type</td>
<td>17%</td>
<td>8%</td>
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<tr>
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<td>24%</td>
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<td>6%</td>
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<td>25%</td>
</tr>
<tr>
<td>Savings</td>
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<td>3%</td>
</tr>
<tr>
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<td>3%</td>
<td>3%</td>
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<td>2%</td>
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<tr>
<td>Cash Access Fees</td>
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<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Monthly Fees</td>
<td>23%</td>
<td>35%</td>
<td>36%</td>
</tr>
</tbody>
</table>
# Alternative Payment Card Designs and Take Rates

## Detroit LMI Population

<table>
<thead>
<tr>
<th>Requirements</th>
<th>No credit check</th>
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<th>No credit check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Type</td>
<td>Debit (ATM) Card</td>
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<td>MasterCard Prepaid Debit Card</td>
</tr>
<tr>
<td>Lost Card Protection</td>
<td>Federal protection</td>
<td>Federal protection</td>
<td>Federal protection</td>
</tr>
<tr>
<td>Deposits</td>
<td>Direct Deposit</td>
<td>Direct Deposit</td>
<td>Direct Deposit</td>
</tr>
<tr>
<td>Savings</td>
<td>Automatic savings plan</td>
<td>Automatic savings plan</td>
<td>Automatic savings plan</td>
</tr>
<tr>
<td>Bill Payment</td>
<td>Automatic bill payment available</td>
<td>Pay bills in person with card</td>
<td>Automatic bill payment available</td>
</tr>
<tr>
<td>Get Cash</td>
<td>Get cash at participating ATMs and with purchases at stores</td>
<td>Get cash at any ATM, from bank tellers and with purchases at stores</td>
<td>Get cash at participating ATMs and with purchases at stores</td>
</tr>
<tr>
<td>Cash Access Fees</td>
<td>$1.50 fee for each ATM cash withdrawal</td>
<td>$1.50 fee for each ATM cash withdrawal</td>
<td>$1.50 fee for each ATM cash withdrawal</td>
</tr>
<tr>
<td>Monthly Fees</td>
<td>No monthly fees with Direct Deposit of your paycheck</td>
<td>No monthly fees with Direct Deposit of your paycheck</td>
<td>No monthly fees with Direct Deposit of your paycheck</td>
</tr>
</tbody>
</table>

**Detroit LMI Population**

- Detroit LMI Population: 51.8%
- Residents of Low Income: 52.8%
- Residents of Moderate Income: 50.8%
- Unbanked Detroit LMI Population: 53.0%

## Detroit LMI Unbanked

<table>
<thead>
<tr>
<th>Requirements</th>
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<td>No monthly fees with Direct Deposit of your paycheck</td>
</tr>
</tbody>
</table>

**Detroit LMI Unbanked**

- Detroit LMI Unbanked: 50.4%
- Residents of Low Income: 51.4%
- Residents of Moderate Income: 49.2%
- Unbanked Detroit LMI Population: 53.3%

## Detroit LMI Banked

<table>
<thead>
<tr>
<th>Requirements</th>
<th>No credit check</th>
<th>No credit check</th>
<th>No credit check</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
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<td>$1.50 fee for each ATM cash withdrawal</td>
</tr>
<tr>
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<td>No monthly fees with Direct Deposit of your paycheck</td>
<td>No monthly fees with Direct Deposit of your paycheck</td>
<td>No monthly fees with Direct Deposit of your paycheck</td>
</tr>
</tbody>
</table>

**Detroit LMI Banked**

- Detroit LMI Banked: 51.2%
- Residents of Low Income: 50.3%
- Residents of Moderate Income: 52.2%
- Banked Detroit LMI Population: 52.5%

**Estimated Take-Rates**

<table>
<thead>
<tr>
<th>Detroit LMI Population</th>
<th>51.8%</th>
<th>50.4%</th>
<th>51.2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents of Low Income</td>
<td>52.8%</td>
<td>51.4%</td>
<td>50.3%</td>
</tr>
<tr>
<td>Census Tracts (stratum 5)</td>
<td>50.8%</td>
<td>49.2%</td>
<td>52.2%</td>
</tr>
<tr>
<td>Residents of Moderate Income</td>
<td>51.4%</td>
<td>49.2%</td>
<td>52.5%</td>
</tr>
<tr>
<td>Census Tracts (stratum 6)</td>
<td>53.0%</td>
<td>53.3%</td>
<td>47.8%</td>
</tr>
</tbody>
</table>

**Unbanked Detroit LMI Population**

- Detroit LMI Unbanked: 53.3%
- Residents of Low Income: 49.2%
- Residents of Moderate Income: 52.2%
- Unbanked Detroit LMI Population: 47.8%
Response of take rates to monthly fees (banked versus unbanked).

<table>
<thead>
<tr>
<th>Monthly Fee</th>
<th>Banked</th>
<th>Unbanked</th>
</tr>
</thead>
<tbody>
<tr>
<td>None, with direct deposit</td>
<td>55.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>$2.95</td>
<td>50.0%</td>
<td>45.0%</td>
</tr>
<tr>
<td>$5.95</td>
<td>45.0%</td>
<td>40.0%</td>
</tr>
<tr>
<td>$9.95</td>
<td>40.0%</td>
<td>35.0%</td>
</tr>
</tbody>
</table>
IDEAS42 FINANCIAL STABILITY CARD

ACCOUNT STRUCTURE

- **INCOME**
  - ACH deposits
  - Cash deposits
  - Check deposits

- **EXPENSES**
  - Bills
    - ACH payments
    - Check payments

- **Bill payment account** (funds set aside for priority bills)
  - Automated bill payment
  - Automated transfer (surplus funds)

- **Discretionary spending account\(^1\)** (funds for daily purchasing decisions)

- **Low-cost credit** (emergency funds)

- **Savings Account** (emergency funds)

- **EMERGENCY BUFFER**