Payday Loan Choices and Consequences

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Rutgers Business School
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This research does not necessarily represent the views of the Federal Reserve
Credit Access and Well-Being

• Neoclassical perspective
  – Credit access expands the choice set, hence (weakly) it must be welfare-improving for borrowers
  – “Our industry exists solely because we offer our customers a product that is more desirable than the alternatives.” (Darrin Andersen, President of CFSA)

• Alternative perspective
  – Factors like overoptimism and limited self-control can flip the welfare effects (DellaVigna and Malmendier 2004)
  – Payday loans are “a credit product that can impose substantial costs on imperfectly informed and imperfectly rational borrowers.” (Bar-Gill and Warren 2008)

• Today: one particular type of credit, and many outcome measures
Payday Loans

• Provide liquidity until borrower’s next payday (Caskey (1994, 2001, 2005), Elliehausen and Lawrence (2001))
• Typical loan size = $300
• 18% finance charge *per loan* = 450%+ APR

• Market size facts (Stephens, Inc. 2009, Caskey 2010) :
  — 9-14 million distinct households
  — Loan volume = $35b per year
  — 1990: 200 outlets
  — Today: 20,000-30,000; new entrants Wells Fargo, US Bank, etc.
• More PDL outlets in the US than McDonald’s
Topical Importance

• “The Bureau will be giving payday lenders much more attention... [While] we recognize the need for emergency credit, it is important that these products actually help consumers, rather than harm them.”

  Richard Cordray, Chief, CFPB

• Policy-relevant population: borrowers have high MPCs
• Campbell (2006)
• Extensive financial innovation
• Financial inclusion initiatives
Questions

• Do payday borrowers have other sources of credit?

• Are such borrowers shopping around for credit?

• Are such borrowers responding to a short-term shock?

• Are payday loans (PDLs) unduly risky?
Main findings

• Evidence of heightened financial stress and credit demand at time of PDL application
  – Shopping intensity increases at time of PDL application

• At same time, PDL applicants have severe long-term financial problems

• Post-application path of credit scores no different for just-accepted vs. just-rejected
Rest of talk

• Background

• Data

• Results
  – PDL applicants vs. general population
  – Trends in scores etc. for PDL applicants
  – Regression discontinuity impact estimation

• Interpretation and conclusions
Payday loans entail considerable risk

• Over-optimism, cognitive limitation or misunderstanding might be at play

• Some research underscores riskiness of PDLs:
  – Skiba and Tobacman (2011) find that access sharply increases likelihood of bankruptcy
  – Melzer (2011) finds that access increases financial distress
Other research highlights potential benefits of payday loans

• In absence of PDLs, people more likely to bounce checks and miss bills (Zinman 2010, Morgan and Strain 2012)

• Access to PDLs mitigates foreclosures during natural disasters (Morse 2011)
Two sources of data

1. PDL applicant records from one national payday lender
   - Application date – records span 2001-2004
   - Approval/rejection decision
   - Underwriting score (not a FICO score)
   - Applicant identifiers
Merge payday applicants to their credit history

2. FRBNY/Equifax Consumer Credit Panel (CCP)
   - 5% national sample ("primary"), plus anyone at same address ("full")
     - Ongoing panel
     - Quarterly frequency since 1999:1
     - New people added to primary sample each quarter

   - Match results:
     - Start with ~250k PDL applicants
     - Matched ~12k to primary sample (nearly 5%)
     - Each quarter, ~40k matched to full sample
<table>
<thead>
<tr>
<th></th>
<th>Payday applicants matched to full CCP</th>
<th>National random sample of people with a credit record, end of 2002:Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>median</td>
</tr>
<tr>
<td>Credit score⁠¹</td>
<td>513</td>
<td>517</td>
</tr>
<tr>
<td>Number of open accounts</td>
<td>3.8</td>
<td>3</td>
</tr>
<tr>
<td>Share of accounts not current²</td>
<td>0.53</td>
<td>0.5</td>
</tr>
<tr>
<td>Total debt ($)</td>
<td>19,656</td>
<td>5,977</td>
</tr>
<tr>
<td>Has one or more credit cards³</td>
<td>0.59</td>
<td>1</td>
</tr>
<tr>
<td>Total limit for cardholders ($)</td>
<td>3,050</td>
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<tr>
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<tr>
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<td>1.4</td>
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</tr>
<tr>
<td>Age (years)⁶</td>
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A. Payday applicants matched to primary CCP
Those observed over at least 20 quarters
(N=11,959)

B. Random sample of CCP observed for at least 20 quarters
(N=12,000)
Credit scores bottom out right after first application

Average Equifax credit risk score of payday applicants
Credit Score Distribution

Average Equifax risk score over quarters since first application.
Delinquencies and credit demand peak around first application.
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Figure 2. Credit Score Path of 2002q2 Payday Loan Applicants versus General Population with Identical Scores in 2002q2
Does getting a payday loan affect outcomes?

- Regression discontinuity design
  - Teletrack score determines payday loan approval
  - Compare applicants just above/below approval threshold
  - Note: payday loans don’t directly affect credit scores
Does getting a payday loan affect outcomes?

- Regression discontinuity design

- Teletrack score determines payday loan approval

- Compare applicants just above/below approval threshold

Note: payday loans don't directly affect credit scores
Credit scores of approved vs. denied

- **All applicants**
- **Within 1 SD of threshold**
- **Within 0.5 SD of threshold**
- **Within 0.25 SD of threshold**
<table>
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<th>Bandwidth¹</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 quarter out</td>
<td>4 quarters out</td>
<td>8 quarters out</td>
<td>12 quarters out</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bandwidth¹</td>
<td>0.5sd</td>
<td>0.25sd</td>
<td>0.5sd</td>
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<td>0.5sd</td>
<td>0.25sd</td>
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A. Full sample applicants, within specified bandwidth

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<th>Application Approved</th>
<th>Application Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>-9.48**</td>
<td>13.19**</td>
</tr>
<tr>
<td></td>
<td>(3.55)</td>
<td>(5.11)</td>
</tr>
<tr>
<td>N</td>
<td>10714</td>
<td>4029</td>
</tr>
</tbody>
</table>

B. Applicants observed in CCP in quarter before application; controls for pre-application score

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</tr>
<tr>
<td></td>
<td>-2.29</td>
<td>-2.07</td>
</tr>
<tr>
<td></td>
<td>(2.81)</td>
<td>(4.13)</td>
</tr>
<tr>
<td>N</td>
<td>8547</td>
<td>3223</td>
</tr>
</tbody>
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A. Payday applicants matched to primary CCP
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(N=11,959)

B. Random sample of CCP observed for at least 20 quarters
(N=12,000)
Score components of approved vs. denied applicants over time

Total balance ($, 000's)

Mean available credit on credit cards ($)

Mean number inquiries past 12 months

Mean share of accounts not current
Testing for heterogeneous effects

Does the effect differ for those starting in the top/bottom quartile of the score distribution?
Testing for heterogeneous effects

Does the effect differ for those starting in the top/bottom quartile of the score distribution?

- Applicants with score at t-1 below 25th percentile
  - Mean credit score

- Applicants with score at t-1 above 75th percentile
  - Mean credit score

Equifax risk score

Quarters since first application

- 25th, Over
- 25th, Under
- 75th, Over
- 75th, Under
Caveat: data from one lender

• If rejected applicants can easily get a loan elsewhere, our RD estimate will be biased toward zero.

  – Just-rejected applicants are far less likely to apply again (relative to just-accepted applicants) in the next two years at the observed company → maybe they hesitate to apply elsewhere too
Conclusions

• Evidence of heightened financial stress and credit demand at time of payday loan application

• At the same time, payday applicants have severe long-term financial problems

• Post-application path of credit scores and score components is similar regardless of actually getting a payday loan
  – Assuming rejected applicants are less likely to get a payday loan anywhere, there’s little connection between getting a payday loan and creditworthiness