DISCUSSION OF:

“ACCELERATOR OR BRAKE? CASH FOR CLUNKERS, HOUSEHOLD LIQUIDITY, AND AGGREGATE DEMAND”

Green Melzer Parker Rojas (2017)

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Overview

- Goal is to identify how household financial constraints (access to liquidity) affect the impact of fiscal stimulus.
  - CARS program was both a rebate and provided immediate liquidity.

- Combine data on vehicle (model) with household balance sheet position.

- Using a diff-in-diff approach, find that CARS strongly increases the probability of buying a new car.
  - Effect is a temporary shift of purchases.

- Effect drops to 0 for households with loans on the “clunkers”.

- Very good paper, clearly written.
  - Great example of how to write a good empirical paper.
  - Comments on main contribution – identification of liquidity effects (sample size, others).
CARS ("Cash for clunkers") program

Overview

- Trade-in for old vehicles (<25 yrs), Jul-Aug 09
- New vehicles of better MPG (cars: <$45k, >=22MPG)
- Subsidy is $3,500 or $4,500, depends on Δ in MPG

Economic subsidy

- \(\max(S - V, 0), S \in \{3,500,4,500\}, V\) is value of the trade-in
- Liquidity w/ program: \(S - L\), \(L\) is the loan on the vehicle

Empirical methodology

- Use BLS Cons. Exp. Survey + EPA + Edmunds
- Diff-in-diff for subset of “at-risk” households
- Treatment: MPG <= 18, Control: MPG >= 19.
Effect of the subsidy
Estimates of the effect of the program on trade-ins are very clean

RDD “feel”, and unlikely that household unobservables sort very strongly once condition on value<$5,000 and MPG between 12 and 25.

Also convinced that this represents mostly an anticipation of purchases.
Interaction with liquidity
Interaction with liquidity
Interaction with liquidity - control
Small sample for secured loans + clunker subsample

<table>
<thead>
<tr>
<th></th>
<th>Clunker</th>
<th>Close to clunker</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Loan</td>
<td>1,580</td>
<td>2,102</td>
</tr>
<tr>
<td>With Loan</td>
<td>96</td>
<td>163</td>
</tr>
<tr>
<td>Total</td>
<td>1,676</td>
<td>2,265</td>
</tr>
</tbody>
</table>

2-3% over 6 months is small (2-3 households for “clunker, with loan” sample).
Characteristics of households by trade-in value x liquidity?

<table>
<thead>
<tr>
<th>Sample characteristics</th>
<th>Subsample:</th>
<th>Classified</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clunker</td>
<td>Close-to-Clunker</td>
</tr>
<tr>
<td>Number of vehicles</td>
<td>1,676</td>
<td>2,265</td>
</tr>
<tr>
<td>Number of households</td>
<td>1,480</td>
<td>2,014</td>
</tr>
<tr>
<td>Sample mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle age (years)</td>
<td>13.1</td>
<td>11.8</td>
</tr>
<tr>
<td>Vehicle value ($ thousands)</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Vehicle fuel economy (MPG)</td>
<td>15.6</td>
<td>21.0</td>
</tr>
<tr>
<td>Vehicle loan outstanding (indicator)</td>
<td>5.7%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Vehicle loan balance, if &gt; 0 ($ thousands)</td>
<td>5.0</td>
<td>4.7</td>
</tr>
</tbody>
</table>
Clunkers with loans – alternative hypotheses

1. Severely constrained households

For these cars, as long as $L \leq V$, the liquidity provision is still substantial.

What is typical down-payment for relevant set of new cars?

Summary statistics suggest that $L > V$ for at least some, potentially many of them.

May indicate these are particularly constrained households, who may not have access to new car loans in the crisis.

Maybe these households only had access to loans with higher down-payments?
Clunkers with loans – alternative hypotheses

2. High value cars – economic subsidy is small

- Estimated effects are largest for cars of trade-in value of <2,000

- Is subsample of clunkers with loans of higher average value?
  - Relative to sample owned outright
  - May help explain the results as pure value of subsidy effect (not liquidity)