Perceived Precautionary Savings Motives: Evidence from FinTech

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Paper Summary

• Research Question: how consumers respond to the introduction of a mobile overdraft facility on a FinTech app

• Data: administrative checking account data from a major European FinTech bank
  – Monthly information about all financial transactions, including spending in different categories, inflows, fees, credit line application/balance etc.
  – (to mitigate selection issue) restrict to 40,979 individuals who obtained a mobile credit line between February 2015 and October 2017
Paper Summary

• Identification:
  – Staggered treatment: compare users after activating the overdraft facility relative to before and relative to users whose overdraft facilities are not yet activated
    • conditional on consumers who are granted with mobile overdraft to mitigate endogeneity issue

  – Regression discontinuity
    • The maximum limit of the overdraft facility jumps at several prespecified income cutoff, which users are not aware.
Paper Summary

• Consumers increase their spending after receiving the credit line
  – Magnitude is large: MPC out of granted credit is about 81%
  – Response concentrated on the first two month after credit access
  – Response is larger for discretionary spending

• Consumers with highest ratios of deposits to income flows have the largest response
  – However, they have low income vol, and less likely to use the overdraft credit
  – Those with lowest deposits do not respond at all
  – Results seem to be more consistent with the “perceived precautionary savings motive”
Highlights

• Very impressive data

• Clean estimate of MPC out of credit based on the RDD

• Very intriguing results on the heterogeneity analysis—“perceived precautionary savings”
Comment 1

• Consumption response to mobile overdraft facility (on FinTech app)
• Overdraft is a form of credit line
• Questions to consider:
  – How different from variation in traditional credit access?
    • Gross and Souleles (2002)
    • Leth-Petersen (2010)
  – What is the special role of FinTech/mobile app
    • Exploiting more FinTech feature? E.g., discretionary choice over the credit limit, reminder notification
Comment 2

• The authors show that consumers in the bottom two deposits/inflows quintiles (in the month immediately before the overdraft activation) do not respond at all.

• Based on which the authors ruled out a serious possible explanations.
Comment 2 (cont.)

• They are more likely to use the overdraft credit after activation
  – 66.8% (42.4%) of the consumers from the 1st (2nd) quantile had negative deposits during the following quarter

• However, their consumption did not increase at all

• Where did the money go?
Comment 2 (cont.)

• Consumers could have other bank or credit card accounts
  – This dataset only cover checking accounts; consumers have credit score
  – Savings rate in sample much higher than the average savings rate (10%) in Germany

• Is it possible they borrow against the overdraft credit and spend through credit card/payoff debts?
  – The interest rate of the credit line is 10%, lower than the interest rate of credit cards

• Or they simply face a negative income shock?
Comment 2 (cont.)

• Suggestions:
  – Check whether there are abnormal outward transfer among these least liquid consumers after the overdraft activation

  – Better yet, incorporate other (credit card) spending in the analysis
    • Obtain access e.g., from credit bureau data
Comment 3

• In MPC and mechanism analysis, tests did not condition on the actual use of the overdraft
  – MPC out of the granted credit instead of used credit
  – Heterogeneity analysis also did not take into account of the differences in utilization

• In sample, 50% of the observations use the granted credit
  – How to interpret the results for a large group who activated overdraft but never used the credit?
  – The utilization propensity appears especially low for the high deposit-to-income consumers
Comment 3

- Recall that the heterogeneity analysis is based on DID analysis
  - Identifying assumption is the random timing of activation

<table>
<thead>
<tr>
<th>Deposit/Inflows quintiles</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Deposit_{t-1}$</td>
<td>32.596</td>
<td>439.433</td>
<td>1078.545</td>
<td>1909.177</td>
<td>4124.7</td>
</tr>
<tr>
<td>$Deposit_{t-12,t-1}$</td>
<td>316.625</td>
<td>541.457</td>
<td>891.213</td>
<td>1258.738</td>
<td>2362.494</td>
</tr>
<tr>
<td>$Income_{t-1}$</td>
<td>1309.255</td>
<td>1815.831</td>
<td>1865.397</td>
<td>2009.052</td>
<td>1321.96</td>
</tr>
<tr>
<td>$Income_{t-12,t-1}$</td>
<td>1188.622</td>
<td>1335.739</td>
<td>1522.682</td>
<td>1383.086</td>
<td>1143.447</td>
</tr>
</tbody>
</table>

- For consumers from the top quintile, their deposit increased rapidly, but their income did not: they are saving immediately before the credit line activation
Comment 3 (cont.)

• What are they saving for?
  – It is possible they anticipated a large expenditure in the future, therefore save and at the same time activate the credit line

• Suggestions:
  – Explicitly test the pre-trend of deposit
  – Construct the grouping variable based on t-12~t-3, to mitigate the anticipation concern
  – Repeat this analysis using RDD to get rid of potential endogeneity concern
Comment 4

• Mobile overdraft seems to be very cheap
  – Very convenient to apply; no application fee
  – Annualized interest rate of credit line is only 10%, no penalty if credit is not used

• However, only 32% of the consumers applied for mobile overdraft
  – On average consumers apply about 9 months after account opening

• What prevent them from applying?