Fiscal Stimulus and Household Debt Through the Lens of 80-million Loan Accounts

By Athiphat Muthitacharoen, Sommarat Chantarat, Atchanan Lamsam, Krislert Samphantharak

Discussion by
Sutapa Amornvivat

Bank of Thailand Symposium, 15th September 2016
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Big picture

New research frontier from a rare access to NCB data

• Wealth of information is yet to be explored by researchers
• Data is currently used by banks to evaluate individual borrowers, but never at the national coverage

Potential to provide economic insights and policy implications

• This paper evaluates the first-car rebate program.
• Paper mentions other fiscal stimulus programs: recent low-cost housing program, exemption of real-estate transfer fee, the rice-paddy pledge program
• Why not macro-prudential measures?
Evaluating the first-car rebate program

Noble effort to evaluate a fiscal stimulus program with such widespread and long-lasting impact

- At the onset, few people foresaw the magnitude of impact on traffic, household consumption, banking industry, car industry, used and new.

Careful analysis with room for improvement to strengthen the results

- Discussion from a bank’s perspective

Interpreting the results for policy implications

- Now that we find its side effects, do we tell policymakers not to use it?
- What are the trade-offs for this policy?
- Is there anything policymakers could do to prevent side effects?

Shouldn’t the emphasis be on policy, instead of data?
Research methodology

Challenge: Choosing the right comparison to get at the true effect of the program

Sample: 18,829 individuals

Assumption: Treatment and Control are similar except for the first-car rebate participation

Potential problems:
1. Mis-identification of the Treatment group
2. Too many moving parts
3. Interpreting the results for banking implications
Mis-identifying the Treatment group

Over-counting the treatment group may be a larger problem than previously thought.

Treatment as defined in the paper = individuals that purchased a qualified car model during Sep 11 – Dec 13 and the purchase was the first car since Dec 09

Non-participants in the Treatment group performed worse in terms of loan repayment.

%NPL by group

<table>
<thead>
<tr>
<th></th>
<th>After 12 Mo.</th>
<th>After 24 Mo.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actually received the rebate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bought same car model but did not participate</td>
<td></td>
<td></td>
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</tbody>
</table>

*Diagrams are not to exact scale.

Result

<table>
<thead>
<tr>
<th>Prob of Delinquency</th>
<th>Control</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
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Suggestion

• Merge with more data sets
• Add policy variables in NCB data in the future
Too many moving parts

Several determinants of hire purchase repayment behavior changed over time.

**BOT’s policy interest rate**

<table>
<thead>
<tr>
<th>Year</th>
<th>Control1</th>
<th>Treatment</th>
<th>Control2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
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<td>2011</td>
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<td>2014</td>
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<td>2015</td>
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<tr>
<td>2016</td>
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</table>

**Eco-car timeline:**
- Introduction of the first eco-car model (March 09)
- 3 eco-car models available at launch
- 8 eco-car models available at the end of program
- 11 eco-car models available

**Suggestion**
- Distinguish between Control1 and Control2

Source: Bank of Thailand
Interpreting the results for banking implications

Results: Higher delinquency among program participants

Customer types:

<table>
<thead>
<tr>
<th>NCB</th>
<th>Scoring &amp; Underwriting 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non NCB</td>
<td>Scoring &amp; Underwriting 0</td>
</tr>
</tbody>
</table>

Lower accuracy

Implication: Banks may have failed to detect bad vs good borrowers with this program

Suggestion

- Banks to improve on the model for Non-NCB customers
- Broadening NCB coverage to utility bills, co-ops, etc.
- Regulator to consider macro-prudential policy adjustment in response to future fiscal stimulus measures
In Conclusion

- Ask a bigger question to get a more complete picture for policy analysis
- NCB to broaden coverage and other variables, if utilized for evaluating policies
- Merge with other data sets for deeper and broader analysis
- Potential implications for macro-prudential measures in response to a fiscal stimulus program
- More collaboration between researchers, banks, and regulators on NCB data and others, provided that confidentiality conditions are strictly followed