VIETNAM- NETHERLANDS PROJECT FOR MASTER DEGREE IN DEVELOPMENT ECONOMICS

DETERMINANTS OF CREDIT RATIONING IN RURAL CREDIT MARKET – AN ANALYSIS FROM THE VHLSS02

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RELEVANCE OF THE STUDY

- The importance of rural development through access to credit
- In Vietnam, the demand for credit in the rural sector is enormous
- To address the reason why some applicants receive loans and the others do not — which factors determine the credit rationing of rural households in rural credit market
CONTENT OF THE PRESENTATION

- Theoretical framework
- Rural credit market in Vietnam
- Data and model specification
- Results interpretation
- Policy implications
Central research question:
- What are the determinants of credit rationing in rural credit market in Vietnam?

Sub questions:
- Why do lenders need to ration credit?
- What screening devices do FIs use to offer loans?
- How do these factors affect the access to credit of rural households?
- What should be improved to reduce credit rationing to rural households?
THEORETICAL FRAMEWORK – The rural credit market

- Two traditional views ((Hoff and Stiglitz, 1993)
  - Monopolistic money lenders
  - Perfect market
- Four alternatives market institutions (Braveman and Guasch, 1986)
  - Competitive market with complete information
  - Competitive market with imperfect information
  - Rural credit market dominated by a local monopolistic money lender
  - Fragmented credit market
THEORETICAL FRAMEWORK – The rural credit market (con’t)

- The rural credit in developing countries is fully imperfect because of imperfect information, asymmetric information and the missing of some markets.
- Imperfect information is the state that different parties do not have complete knowledge and foresight the future prices and location of goods and services.
- Asymmetric information was caused by the imperfect information.
THEORETICAL FRAMEWORK – Credit rationing

- **Credit rationing** is a situation in which the demand for commercial loans exceeds the supply of these loans at the ruling commercial rate (Stefania Cosci, 1993).

- **Adverse selection** arises when commodities are distinguished on one side of the market but are treated as identically by the other side.
THEORETICAL FRAMEWORK – Credit rationing (con’t)

- **Moral hazard** arises when an individual takes an action to maximize his own welfare.

- **Contract enforcement problems** arises from costly contract enforcement. Credit contracts always hide uncertain possibilities, they are not enforced by courts, but instead by social norms of reciprocal and third party sanctions.
RURAL CREDIT MARKET IN VIETNAM

- Formal sector: VBARD, VBSP, PCFs, and some RSHBs
- Semi-formal sector: national programs, credit programs of mass organizations, credit and savings programs of INGOs
- Informal sector: money lenders, families, friends and relatives, and traditional rotating savings and credit associations
DATA AND MODEL SPECIFICATION

- Data comes from the two sources
  - The Vietnam Household Living Standard Survey in 2002
  - The survey on Access to Households’ Resources

- Model specification

DRATION (0 = applicant is not rationed, 1 = applicant is rationed)

Probit (DRATION) = \( \alpha_0 + \alpha_1\text{HHAGE} + \alpha_2\text{GENDER} + \alpha_3\text{EDU} + \alpha_4\text{DEPENDRATIO} + \alpha_5\text{ASSET} + \alpha_6\text{DHELP} + \alpha_7\text{DPAID} + \alpha_8\text{DCONTACT} + \xi \)
EMPIRICAL RESULTS
No. of loans, 1997-2002

<table>
<thead>
<tr>
<th>No. of loans</th>
<th>Fre.</th>
<th>%</th>
<th>By province (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ha tay</td>
</tr>
<tr>
<td>0</td>
<td>289</td>
<td>30.98</td>
<td>29</td>
</tr>
<tr>
<td>1</td>
<td>212</td>
<td>22.72</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>149</td>
<td>15.97</td>
<td>22</td>
</tr>
<tr>
<td>3</td>
<td>111</td>
<td>11.90</td>
<td>17</td>
</tr>
<tr>
<td>4</td>
<td>53</td>
<td>5.68</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>119</td>
<td>12.75</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>933</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
EMPIRICAL RESULTS
Distribution of loan by sources

<table>
<thead>
<tr>
<th>Source of loan</th>
<th>No. of loans</th>
<th>Average loan size</th>
<th>% received/applied</th>
<th>% loans need collateral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>958</td>
<td>5.977</td>
<td>96.50</td>
<td>63.50</td>
</tr>
<tr>
<td>Semi-formal</td>
<td>139</td>
<td>3.731</td>
<td>92.52</td>
<td>14.36</td>
</tr>
<tr>
<td>Informal</td>
<td>556</td>
<td>3.782</td>
<td>97.85</td>
<td>6.11</td>
</tr>
<tr>
<td>Total</td>
<td>1,653</td>
<td>4.309</td>
<td>96.10</td>
<td>28.00</td>
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</table>
EMPIRICAL RESULTS
Model estimation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Estimated coefficients</th>
<th>Df/dX</th>
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</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-0.279778</td>
<td>-0.109907</td>
</tr>
<tr>
<td>Hhage</td>
<td>-0.0076241</td>
<td>-0.002995</td>
</tr>
<tr>
<td>Dependratio</td>
<td>0.0371627</td>
<td>0.0145988</td>
</tr>
<tr>
<td>Edu</td>
<td>-0.0343111</td>
<td>-0.013477</td>
</tr>
<tr>
<td>Asset</td>
<td>-0.0000166</td>
<td>-6.53E-06</td>
</tr>
<tr>
<td>Dhelp</td>
<td>-0.380309</td>
<td>-0.100027</td>
</tr>
<tr>
<td>Dpaid</td>
<td>-0.398707</td>
<td>-0.10512</td>
</tr>
<tr>
<td>Dcontact</td>
<td>-0.5982427</td>
<td>-0.231166</td>
</tr>
<tr>
<td>_cons</td>
<td>0.5235031</td>
<td>-</td>
</tr>
</tbody>
</table>
RESULT INTERPRETATION

- Borrowers in all three sectors are rationed

- The successful finding of this study is the three variables of receiving help from communities authorities in the borrowing process (Dhelp), the payment history (Dpaid) and having contact with anyone working in lending institutions (Dcontact)
RESULT INTERPRETATION

- Other variables of households:
  - Age of household head: negative impact
  - Male should have higher chance of to borrow
  - Those are more educated, the easier they get loans
  - The dependency ratio and the total value of asset have impact on the probability of being rationed with minor change
POLICY IMPLICATIONS

- Formal and semi-formal credit network must be extended to the village level
- Develop better devices to screen loans applicants and enforcement procedures
- Competitive policies to mobilize sufficient funds
- Sound legal and regulatory framework
- Should applied group lending method
LIMITATIONS

- Do not capture the regional differences and characteristics, the competition between credit providers in the rural credit market
- Cannot apply the ordered probit model
Thanks you for your attention!