The Role of Collateral and Government Assistance in SME Financing: The Case of Japan

Submitted by: Japan
The role of collateral and government assistance in SME financing: The case of Japan

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For papers cited in the presentation, please see http://www.rieti.go.jp/users/uesugi-iichiro/index_en.html

Objectives of presentation

- Examine the role of collateral in SME financing
- Examine the role of government assistance especially for firms less endowed with real estate (assets most frequently used as collateral)
1. Role of collateral in SME financing

- Frequently used when financial institutions extend loans to SMEs
  Collateral usage rate: Japan (2005) 51.5%, U.S. (1998) 61.5%
  Asset class share of collateral: Japan (2001) 96% real estate, 23% depositary accounts, and 9% equity securities
- However, usage rate decreasing in Japan
  51.5% (2005) → 40.3% (2008)
- Does collateral usage improve or deteriorate funds allocation efficiency?
Economic rationale for collateral usage

(1) Positive aspects

- Problems incurred by information asymmetry between SMEs and financial institutions

  Information asymmetry:
  Banks are not knowledgeable about small firms and thus reluctant to extend loans to them

- Collateral usage alleviates the above problems

Economic rationale for collateral usage

- Limits moral hazard

  Firms that pledge collateral will lose more upon their default than firms that do not.

  They exert more managerial efforts in order to prevent themselves from default.

- Encourages information production

  When collateral value is volatile, financial institutions frequently monitor the collateral value
Economic rationale for collateral usage

(2) Negative aspects
- Detrimental to information production, especially to relationship banking
  Since loans are secured by collateral, banks become lazy and infrequently monitor their borrowers
- Japan’s Financial Service Agency has been rather vocal on the negative aspects
  Banks need to be less dependent on collateralized loans and more on relationship-based loans

Empirical evidence

Positive aspects are dominant in Japan
- Ex-post performance of firms that pledge collateral improves more than the performance of those that do not pledge collateral (Ono, Sakai, and Uesugi(2008))
  Collateral may have prevented moral hazard
- (Collateral and bank monitoring) and (collateral and bank-firm relationship) are complements rather than substitutes (Ono and Uesugi (2009), See next slide)
  Collateral coexists with information production and bank-firm relationship
**Empirical evidence**

### Percentage of borrowers with collateral

<table>
<thead>
<tr>
<th>Frequency of document submission</th>
<th>~49</th>
<th>50~54</th>
<th>55~59</th>
<th>60~64</th>
<th>65~69</th>
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</thead>
<tbody>
<tr>
<td>once every 1-2 months</td>
<td>91.5%</td>
<td>92.3%</td>
<td>94.8%</td>
<td>88.9%</td>
<td>89.9%</td>
<td>78.1%</td>
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<tr>
<td>quarterly</td>
<td>87.6%</td>
<td>88.1%</td>
<td>88.6%</td>
<td>89.3%</td>
<td>83.5%</td>
<td>83.6%</td>
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<tr>
<td>semi-annually</td>
<td>75.9%</td>
<td>78.8%</td>
<td>77.7%</td>
<td>77.2%</td>
<td>73.7%</td>
<td>70.9%</td>
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<tr>
<td>annually</td>
<td>67.2%</td>
<td>69.3%</td>
<td>69.5%</td>
<td>70.1%</td>
<td>66.0%</td>
<td>63.8%</td>
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### Duration of relationship with the main bank

<table>
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<th>Duration of relationship with the main bank</th>
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<th>55~59</th>
<th>60~64</th>
<th>65~69</th>
<th>70~</th>
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</thead>
<tbody>
<tr>
<td>less than 15 years</td>
<td>54.9%</td>
<td>53.9%</td>
<td>58.3%</td>
<td>54.9%</td>
<td>54.5%</td>
<td>44.4%</td>
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<tr>
<td>15-28 years</td>
<td>73.9%</td>
<td>84.1%</td>
<td>80.5%</td>
<td>73.2%</td>
<td>65.2%</td>
<td>59.0%</td>
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<tr>
<td>28-40 years</td>
<td>79.8%</td>
<td>92.4%</td>
<td>87.0%</td>
<td>81.2%</td>
<td>70.1%</td>
<td>68.0%</td>
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<tr>
<td>40 years or more</td>
<td>82.8%</td>
<td>92.7%</td>
<td>89.2%</td>
<td>86.2%</td>
<td>80.1%</td>
<td>72.2%</td>
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### 2. SME financing without collateral and role of the government
Importance of government assistance

- Collateral is important for the efficient allocation of funds
- However, not all SMEs have assets that can be collateralized, especially, real estate
  - Startup firms
  - Firms in information & communication or services sector

- Then, what should these SMEs do to procure funds?
  - Government assistance as one solution

Government financial assistance to SMEs

- Loan guarantees
  - Credit Guarantee Corporations: 29.4 trillion yen

- Direct Loans
  - Governmental Financial Institutions: 22.4 trillion yen
    - JFC (Japan Finance Corporation; former JASME and NLFC)
    - 13.0 trillion yen, Shoko Chukin Bank: 9.3 trillion yen
  - Other Related Agencies
    - SMRJ (Organization for Small and Medium Enterprises and Regional Innovation, Japan)
    - Local Governments

- Investments and subsidies
Effectiveness of the assistance

- Are government programs effective in:
  - alleviating the credit crunch?
  - helping borrower firms to invest in profitable projects?

- However, little empirical evidence for their effectiveness due to data availability

- We summarize Uesugi, Sakai, and Yamashiro (2010) that evaluates the effectiveness of one of the world's largest credit guarantee program implemented in 1998-2001 (Special credit guarantee program)

Special credit guarantee (SCG) program

- Expected Positive Effects:
  - Alleviate the effects of the credit crunch and stabilize Japan's financial system

- Application Period:
  - October 1998 – March 2001 (Severe financial crisis period in Japan, comparable to the current crisis in the world!!)

- Guarantee Amount (overall):
  - 30 trillion yen (planned), 28.9 trillion yen (exercised)

- Major conditions for rejecting the guarantee:
  - (1) Significantly negative net worth, (2) Tax delinquency, (3) Default, and (4) Window-dressing
Empirical evidence for its effectiveness

Using a firm-level data set of SCG users and non-users, we find the following:

- Positive and significant improvement in (long-term) loan availability

  → Effective in alleviating the credit crunch

- Decreasing performance among program users both in terms of the profitability level and the probabilities of falling into financial distress

  → Not so effective in helping borrowers to increase their profitability or to reduce their credit risk

<table>
<thead>
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<th>Control</th>
<th>Treatment</th>
<th>Control</th>
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</table>

- Decreasing performance among program users both in terms of the profitability level and the probabilities of falling into financial distress

  → Not so effective in helping borrowers to increase their profitability or to reduce their credit risk

Note 1: ***, ** indicate a significance level of 1%, 5%, and 10%, respectively.
Conclusions

- Collateral is one of the most important instruments to alleviate problems incurred by SMEs' informational opacity.
- However, some firms lack collateralizable assets.
- For these firms, government assistance may be a solution.
- However, we need to examine whether the assistance provided by the government is effective.