Effectiveness of Credit Guarantees in the Japanese Loan Market

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Questions

- **Are government interventions effective?**

- **Which effect dominates: Stimulating Investment vs Worsening adverse selection?**

Overview

- **Employ Japan's "Special Credit Guarantee Program" as an excellent natural experiment**

  Size: Gigantic (30 trillion yen or 10% of total SME loans)
  Period: Temporary (Oct. 1998 to Mar. 2001)
  Eligibility: Most of small businesses

- **Examine if the program increases loan allocation, investment and efficiency**

- **Discuss how the program affects "relationship lending"**

Public financial assistance to SMEs

- **Credit guarantees (trillions of yen)**
  Credit Guarantee Corporations: 30.3

- **Direct Loans (trillions of yen)**
  (1) Governmental Financial Institutions: 26.6
  JASME (Japan Finance Corporation for Small and Medium Enterprise): 7.6
  NLFC (National Life Finance Corporation): 8.9
  Shoko Chukin Bank: 9.8
  ODFC (Okinawa Development Finance Corporation): 0.3

  (2) Other Related Agencies
  SMRJ (Organization for Small and Medium Enterprises and Regional Innovation, Japan) (amount as of end of June 2004): 1.3

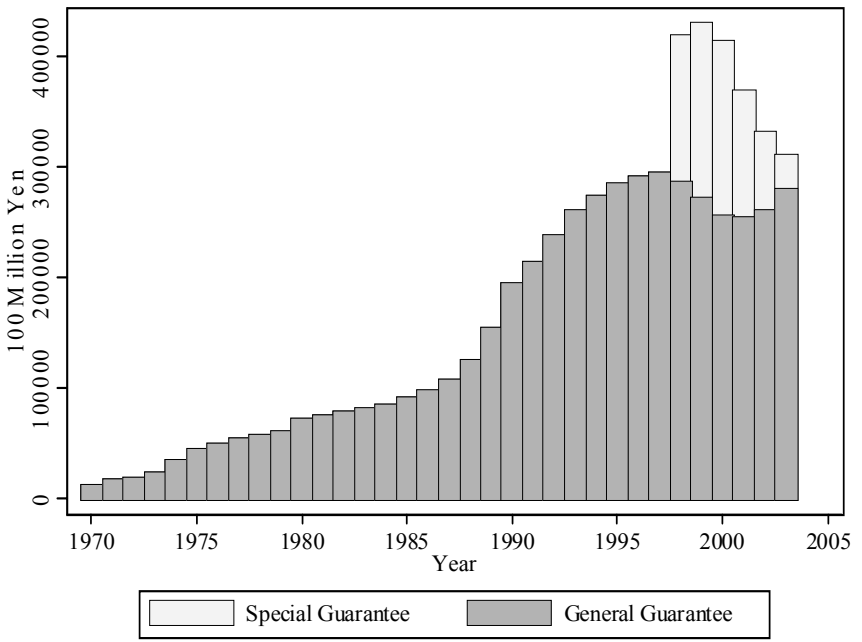
  (3) Local Governments: Sizable, but difficult to measure

- **Investments**

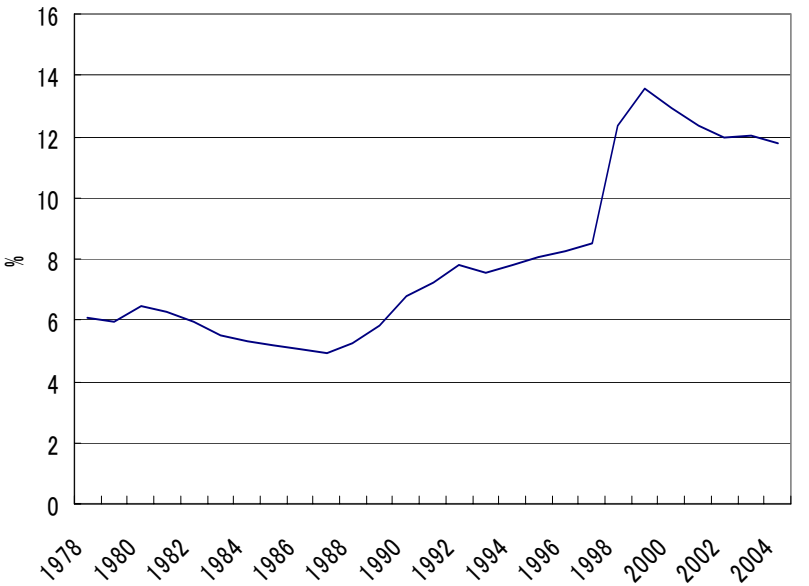
- **Subsidies**

Development of credit guarantees

Guaranteed Loans Amount Outstanding



Ratio of Guaranteed to Total SME Loans



Significant increase by the special guarantee program in 1998

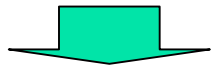
Special credit guarantee program

- **Expected Positive Effects:**
  Alleviate credit crunch and stabilize financial system
- **Period:**
  October 1998 – March 2001
- **Guarantee Amount:**
  30 trillion yen (planned), 28.9 trillion yen (exercised)
- **Ratio of Repayment to Default Amount by Guarantee Corporations**
  100%
- **Requirement of Collateral and Third-Party Guarantor:**
  Almost none
- **Other (major) conditions for rejecting the guarantee:**
  (1) Significantly negative net worth, (2) Tax delinquency, (3) Default, and (4) Window-dressing
- **Amount Recovered by Credit Guarantee Corporations:**
  2.1 trillion yen

Investment vs adverse selection effect

- **Expanding investment (Positive effect)**

  Lenders: With no default cost incurred, extend loans with the risk-free rate

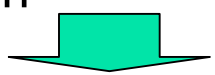
  Increases credit allocation and investment,
  Improves efficiency

- **Worsening adverse selection (Negative effect)**

  Lenders and guarantee corporations:

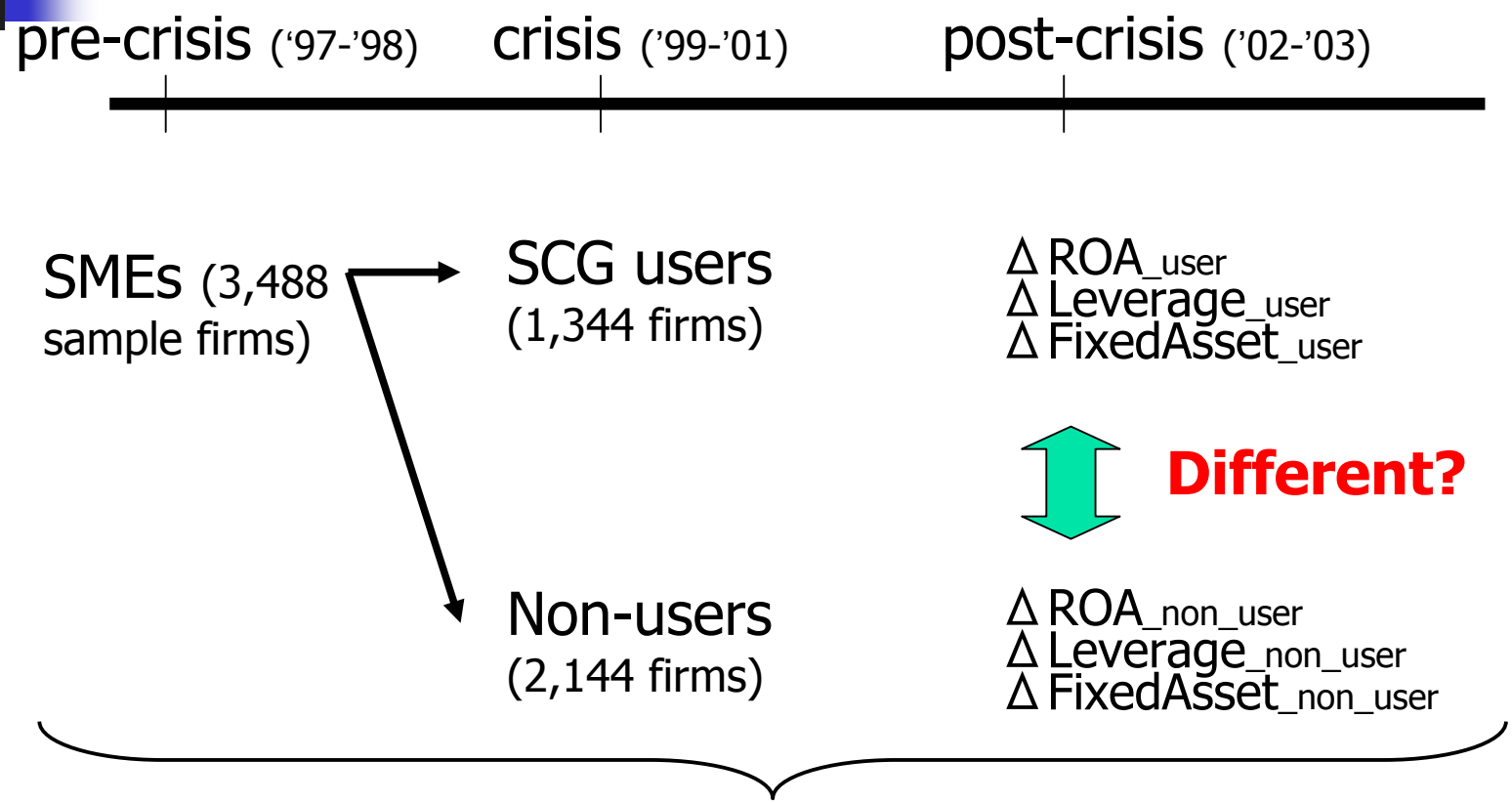
  Infrequent monitoring due to no default cost,
  Insufficient human resources for examination

  Larger information asymmetry causing worse adverse selection

  Excludes good firms from the loan market
  Reduces efficiency

Investment vs adverse selection effect



Investment vs adverse selection effect

$(_{t+1,t-1}\Delta$ User) – $(_{t+1,t-1}\Delta$ Non-user)

	All	Lowest quartile	2nd quartile	3rd quartile	Highest quartile
Leverage	+4.06 a	+3.50 a	+2.84 a	+4.74 a	+3.42 a
Long-term loans ratio	+3.79 a	+3.61 a	+2.64 a	+3.98 a	+4.03 a
Fixed asset ratio	+0.70 b	+0.65	+0.93	-0.53	+1.14
ROA	+1.02 a	-0.11	-0.28	+0.94 b	+0.49

Unit is percentage point. Quartile is by the capital ratio in period t-1. a and b indicate the significance level at the 1% and 5%, respectively.

- Credit allocation improves for all firms with different credit-worthiness
- Efficiency also improves

Investment Effect Dominates

How credit guarantees change "relationship lending"

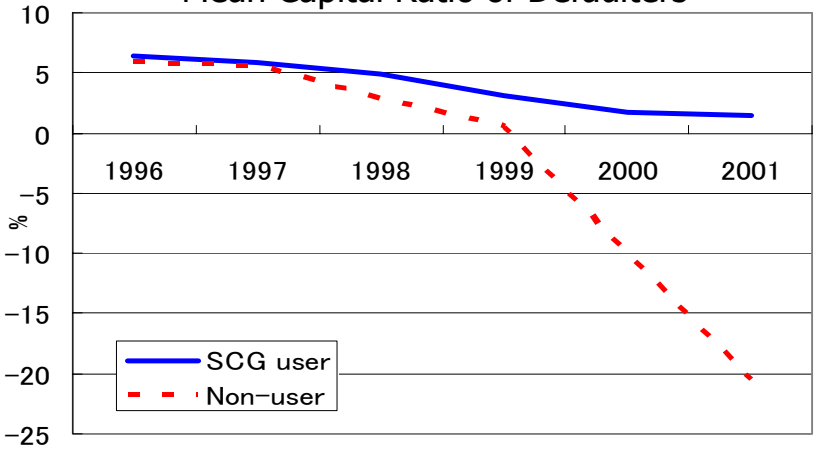
- For the entire sample, credit guarantees users are more closely monitored by banks than non-users
  - Document submission and contact frequency are higher among users than non-users
- However, banks' attitude toward defaulting firms seems to be different from survivors
- Focus on defaulters to see how the bank-borrower relationship differs between users and non-users

How credit guarantees change "relationship lending"

- Non-user defaulters: More frequently monitored than non-user survivors
  Some are assisted even with huge negative net worth
- User defaulters: Charged with higher interest rates than user survivors

Credit guarantees may affect lending relationships between banks and defaulters

Mean Capital Ratio of Defaulters



Interest Payment Rate (%)

	SCG user	Non-user
Survivor	2.79	2.47
Defaluter	3.38	2.35

Document Submission Frequency Index
(Larger figure means more frequent monitoring)

	SCG user	Non-user
Survivor	2.82	2.44
Defaulter	3.07	3.57

Median values are higher among non-users than SCG users

Conclusions

- The special guarantee program contributed to the availability of long-term funds and improvement of efficiency
- Though detailed cost-benefit analyses needed, government interventions in the credit market can be justified
- The guarantee program changes lending relationships between banks and defaulting SMEs