Comment on “The Role of Collateral and Personal Guarantees in Lending Relationships:..”

Colin McKenzie

Keio University

Focus of the Paper

- What are the roles of collateral and personal guarantees in loans to SMEs? Do they avoid adverse selection or moral hazard? FOUND: Collateral more likely to pledged by risky lenders
- Do they substitute for screening and monitoring of financial institutions?

  FOUND: Collateral and guarantees appear to be associated with more monitoring
- What is the impact of long-term relationships on collateral?

  FOUND: Collateral/Guarantees are complementary to relationship lending

Data Set

- Matches the “Survey of the Financial Environment” (2002) with the Tokyo Shoko Research (TSR) data base
- Sample restricted to firms with capital of up to 300 million yen or up to 300 regular employees
- Sample covers large SMEs (median employees 36, median capital 2 million)
- Sample that can be used for regression analysis is about 5000 (not exactly clear in the paper)
- Only loan applications that have been accepted are covered (unavoidable sample selection)

Model for Collateral(1)

- COLL*i = a + bRATEi + cGUARi + dMONITORINGi + eCONTROLi + ei
- COLL = 1 if COLL*i > 0
  = 0 if COLL*i < 0
- Model estimated by standard probit model and techniques allowing for endogeneity of RATE & GUAR
- Endogoneity of RATE confirmed

Model for Collateral (2)

- When endogeneity is allowed for, GUAR has a positive & significant effect, and RATE has a negative significant effect. A reduction in document monitoring reduces the probability of collateral. (complementarity) [Table 13]

Model for Guarantee

- Essentially the same model as for Collateral
- Collateral and RATE are found to be exogenous
- The presence of collateral, increases in interest rates, and increases in document monitoring increase the likelihood of guarantees. [Table 14]

Model for Interest Rate

- $Rate_i = a + bGUAR_i + cCOLL_i + dMONITORING_i + eCONTROL_i + e_i$
- Estimated only by OLS. No tests for endogeneity. Why not? Given results for Table 13 might expect Collateral to be endogenous.
- Existence of collateral and guarantees both increase interest rate. Reductions in monitoring lead to interest rate falls. [Table 15].

Comment 1: Representative Nature of of the Sample

- Paper needs to make more effort to show how representative the sample is.
- How are the initial 15,000 surveyed companies chosen?
- What are the characteristics of the 7000-9000 companies responding?
- How do the sample characteristics relate to other samples? Stated that firm size is found to large.

Comment 2: Monitoring Variables (DOCFREC & CONTACTFREC)

- Definition of variables needs more consideration
- DOCFREQ takes the values 1 (every 1-2 months),2 (quarterly), 3 (semiannual), 4 (annual). Does a move from 2 to 3 and 3 to 4 really have the same meaning?
- In terms of the number of document checks per year, these values corresponds to 6-12, 4, 2, 1
- Alternatively use a dummy variable for each option
- Appropriate to treat this variable as exogenous?
- Is this variable determined at the time of the contract or later?

Comment 2: Monitoring Variables (DOCFREC & CONTACTFREC)

- Similar argument applies to CONTACTFREC even more strongly
- CONTACTFREC the values 1 (every day),2 (weekly), 3 (one every two weeks), 4 (monthly), 5(bi-monthly), 6 (quarterly), 7(semi annual), 8 (annual), 9 (no contact). Does a move from 2 to 3 and 3 to 4 really have the same meaning?
- In terms of the number of document checks per year, these values corresponds to 365(?), 52, 12, 6,4,2,1,0
- Alternatively use a dummy variable for each option
- Appropriate to treat this variable as exogenous?
- Is this variable determined at the time of the contract or later?

Comment 3: Treatment of Credit Guarantees Inappropriate

- Lack of discussion of credit guarantees until page 28. This is a critical point that needs to be introduced much earlier.
- Gives the reader the impression that there are strong doubts about the meaning and interpretation of the analysis to date mean.
- Given that half the loans have credit guarantees the analysis of interest rates, personal guarantees and collateral must include some variable(s) to take account of the presence/absence of credit guarantees, e.g. credit guarantee dummy variable
- Possibility of sample selection bias (analysis in Table 16 is conditioned on no credit guarantees)

Comment 4:
What about long-term loans?

- What is the real nature of the data? Do we have information on individual loan contracts?
- The analysis appears to be restricted to short-term loans(?) [given the use of the short-term interest rate]. Is that really the case?
- For longer maturity loans, problems of moral hazard likely to more important. As a result, collateral may be more important in these cases.
- Would need to worry about macro conditions at the time of the loan?

Comment 5:
Analysis of Credit Guarantees

- While not the current focus of the paper, this data set provides an excellent data set to examine the impact credit guarantees.
- Limiting the sample to those cases with collateral and personal guarantees, still has a large sample, and provides a common base to examine the impact of credit guarantees.
- Given that banks bear no risk, we might expect a ‘lazy bank’ outcome here!

Comment 6:
Alternative Choice of Samples

Collateral	Guarantee	Credit	Sample
X	X	X	889
0	X	X	A
X	0	X	B
X	X	0	65
0	0	X	1413
0	X	0	C
X	0	0	D
0	0	0	2819

A+C=627 B+D=752 C+D=497

Source: Table 1

Possible to compare groups that differ in only one characteristic?

Comment 7:
Alternative to Binary Choice

- Rather than deal with COLL and GUAR separately, what about using a multi-nomial logit model?
- Choices:

0 No collateral and no guarantee

1 Collateral and no guarantee

2 Guarantee and no collateral

3 Guarantee and collateral