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Determinants of Collateral

Discussion EFA 19/8/2004

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Discussion of "Determinants of Collateral"

- Outline
  - Summary
    - Main idea & contribution
    - Tested hypotheses: expected relations
    - Findings
  - Comments
    - Data
    - Methodology
    - Other suggestions

Discussion of "Determinants of Collateral"

- Main idea and contribution of paper
  - Simultaneous test of theoretical implications for correlation between collateral and (i) borrower risk (ii) lending relationship (iii) competition (iv) lender preferences / experience
  - Use ex-post and ex-ante measures of borrower risk
  - Long panel allow for good test of bank relationship implication
  - All loans registered: another measure of intensity of relation

Discussion of "Determinants of Collateral"

- Tested relations between collateral &
  - Borrower default risk
    - Adverse selection/ex-ante a.i. (BesankoThakor87??) [+?]
    - Hidden action/ex-post a.i. (BootThakorUdell91) [-]
  - Duration of lending relationship
    - Demonstrate quality (BootThakor94) [-]
    - Hold-up problem (Greenbaum89/Sharpe90/Rajan92) [+]
  - Degree of competition
    - DIR: Interaction effect with borrower quality (BT87) ["+"]
    - INDIR: via relationship (Diamond91/P´sen&Rajan95) [+]
  - Experience/preference of lender
    - Lazy banks (ManovePadilla99/01) [+]

Discussion of "Determinants of Collateral"

- Findings
  - Use of collateral increases with def_{t+1} and def_{t-1}
  - Use of collateral decreases with relation duration for l.t. loans, independent for s.t. loans
  - # lenders and #loans at bank give no robust results
  - Use of collateral increases with competition
  - Big and specialized banks require less collateral

Discussion of "Determinants of Collateral"

- Data (1)
  - What is a good ex-post measure of default risk
    - Does a $E[def_{t+1}]$ (proxied by def_{t+1}) affect demand for collateral for loans with different maturities in the same way?
    - def_{t+1} is an unbiased estimator of $E[def_{t+1}]$, but not of $E[def_{t+s}]$ ∀s. Therefore:
    - If loans have different maturities, and most loans have relatively long durations, but few loans default early (at t+1) while most do so later on (after t+1), using def_{t+1} will overestimate the effect that ex-post default risk has on using collateral

Discussion of "Determinants of Collateral"

- Data (2)
  - Sample selection effect w.r.t. def_{t-1}?
  - Choice of variables
    - Use financial ratios instead of total debt
    - Loan size as proxy for risk?
    - Output gap i.s.o. growth+cycle (theory?)
    - Why 2 lags of macro variables?
    - Bank size $\approx$ market share
  - Why should partial corr(r,collateral) < 0?

Discussion of "Determinants of Collateral"

- Methodology (1)
  - Why separate models for s.t. and l.t. loans?
    - Maybe reason to be careful interpreting marginal effects (as opposed to parameters)
    - Different marginal effects of borrower risk (despite equal param. estim's) are artifact of different means
    - Can one compare coeff´s on def_{t+1} from separate models?

- Methodology (2)
  - Separate models for old and new borrowers
    - Can one compare coeff´s on def_{t+1} from separate models?
  - Why multinomial logit i.s.o. ordered probit?
    - separate or identical param's for choice of amount of collateral (<50, 50-100, 100)
  - Spurious results due to size of data set?

Discussion of “Determinants of Collateral"

- Other suggestions
  - Many interesting results, but
    - What is quintessence of paper?
    - Which data set delivers “true" model?
    - How to interpret differences between population - and sample results?
    - Focus!

Discussion of “Determinants of Collateral"

- Other suggestions
  - Use bivariate or trivariate probit:
    - Step 1: choose s.t. or l.t. loan (depends on risk)
    - Step 2: collateral choice given loan type