Comments on “Collateral Valuation…”

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Overview

- The problem/issue
- What they did
- What they found
- Some suggestions
- Conclusion

The problem/issue (1)

- Almost all residential real estate lending is collateral-based (as are some other types of loans)
  - Collateral reduces risk to lender in the event of borrower default
- Valuation of the collateral is important to borrower and to lender
  - Borrower generally wants a higher reported value
    - Allows a larger loan and/or lower interest rate
  - Lender generally wants an accurate reported value
    - But loan officers may want to "get the deal done"; or
    - Initial lender may sell the loan for securitization and "wants to get the deal done"
    - Both may create agent-principal problems

The problem/issue (2)

What is the basis for the valuation of the collateral?

- In principle: mark-to-market
  - But what if markets are thin?
- In practice: real estate markets are thin; need an "appraiser"
  - The appraiser looks at "comparable" transactions and makes appropriate adjustments: a mixture of "market" and "model"

Potential for "capture" of the appraiser

- The borrower may want a higher value
- The loan officer (or the lender) may want a higher value
- Long-run reputation may not be sufficient to deal with the agent-principal problems

What they did (2)

OLS regressions

- LHS: Standardized price (valuation) differentials between subsequent sale value and initial appraised value
- RHS:
  - Type of initial transaction (cash-out refi vs. rate-reduction refi vs. house purchase)
  - Characteristics of initial loan (especially LTV); of borrowers; of lenders (esp. portfolio lender vs. mortgage banker)
  - Characteristics of subsequent transaction
  - MSA location of property
  - Dates of initial and subsequent transactions

What they did (3)

Probit default regressions

- LHS: 1,0 for default within first 12 months
- RHS:

  Characteristics of loan (especially LTV); of borrower

  MSA location of property

  Date of initial loan

OLS mortgage contract interest rate regressions

- LHS: contract interest rate
- RHS:

  Same

What they found (1)

- Upward valuation of 3-4% for initial refis (compared to initial home purchases)
- Robust across alternative specifications
- No appreciable differences between cash-out refis and rate-reduction refis
- Upward valuation was modest for loans originated during 1990-2000, grew successively larger as the housing boom progressed after 2000

What they found (2)

- The recalculated LTVs (removing the upward bias) may help predict subsequent defaults
  - But the analysis needs to be redone
- The recalculated LTVs may help predict contract interest rates
  - Lenders may be aware of the upward bias

Suggestions (1)

Provide some discussion of appraisal methodology

Provide more complete description of the data

- Also explain why different numbers of observations appear in different regressions

Suggestions (2)

- For OLS price differential regressions
  - LHS variable: try simple log ratio of initial valuation/subsequent sale price
  - On RHS:
    - Include elapsed time between the 2 transactions
    - Include log ratios of average MSA prices and log ratios of standard deviations of prices
- For probit default and OLS interest rate regressions
  - Include recalculated LTVs on RHS of basic regressions
    - This is the standard method for multivariate regressions
    - Don't extract residuals from the basic regressions and use them as a LHS variable in subsequent regressions
  - Include type of lender on RHS

Suggestions (3)

Look more closely at the Case-Shiller 20 MSAs

- The upward valuation is much smaller than for the overall sample, even for the rapid price-increase group
- Is there something special about these MSAs?
- Or is it the absence of 2007-2011 from this sample?

Look more closely at years 2007-2011

- Why is upward valuation much larger for these years?
- Do appraiser valuations lag the (downward) market?
- Should there be smaller upward valuations in an "up" market?

But that's not what the Case-Shiller 20 MSAs show

Conclusion

- Collateral is important for lending
- The valuation of collateral is important
  - Valuation is easy when markets are thick
- Valuation is difficult when markets are thin
  - This is a more general problem
    - It applies to accounting, as well as to appraisals
  - The right answer has to be a mixture of “market” and “model”
- Moral hazard problems in valuation are real
- A lot more thought needs to be given to addressing these moral hazard problems