# The impact of the originate-to-distribute model on banks before and during the financial crisis

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## Key Message

- OTD model provides flexibility to banks they can scale up or down their operations rapidly using this model.
- Banks used this flexibility to scale up their refinancing business during the lending boom.
- This was profitable during the refi boom, but the resulting loan portfolio was risky as well.
- ▶ These banks lost a lot of value during the downturn.
- ▶ The paper is obviously attacking an important problem.

#### Finding 1: Pipeline Risk

- First the author computes the pipeline time, i.e., time between origination to sale of mortgage based on HMDA data.
- Estimated to be about 40 days.
- Interesting exercise: can be helpful in analyzing the role of inventory risk on bank performance.
- Some refinements
  - What happens to mortgages sold several months and years after origination?
  - Any cyclicality in mortgage sale (say due to accounting considerations)?
  - Pipeline risk heterogeneity should be exploited more in later tests.

#### Finding 2: OTD Mortgages → High Mortgage on B/S

- Banks that use OTD model of lending end up with higher mortgage on their balance sheet as well.
- Pipeline holding effect.
- Suggestions:
  - Can you estimate the regressions in log(volume) to get at the scaling up effect that you are really after?
  - ▶ I would suggest clustering the standard errors at bank level.

#### Finding 3: OTD Mortgages → Higher Profits

► Model:

$$\Delta Profit_{it-1,it} = \alpha + \beta.\Delta OTD_{it} + \gamma Profit_{it-1} + \epsilon_{it}$$
 (1)

- ▶ I am uncomfortable with the use of lagged dependent variable here.
- Errors are very likely to be autocorrelated at bank level over time.
- First differencing is a good approach, but then you add the lagged dependent to the model which is very likely to re-introduce correlations.

## Finding 4: OTD Mortgages → Higher Risk

- Refi OTD loans seem to increase borrower risk.
- ▶ It will be nice to see the overall effect, not only the effect on the sample of top 10% OTD banks.
- Not sure why risk is measured as the standard deviation of price (not returns).
- Suggestion: It maybe helpful to provide more descriptive stats on refi OTDs versus the rest of loans on dimensions such as Loan-to-Income Ratio, median income, and acceptance/denial rate.
- Are refi OTDs more likely to be accepted by a bank conditional on lower income and/or higher loan-to-income ratio?

#### More on Refinancing Loans

- Main results come from refinancing loans.
- Are these loans risky ex-ante?
- ► Are banks with more aggressive refinancing acceptance ratio performing much worse later?
- ▶ How different are the refi loans that are held versus sold?
- How does high pipeline velocity relate to refi quality?

## Finding 5: Refi Boom → Higher refi OTD

- I worry about a mechanical effect here. Refi boom is computed using aggregate refinancing loans as a fraction of all loans in year t.
- When this ratio is high, I expect the refi OTD to be high as my null hypothesis.
- Can you come up with some instrument of refi boom that is not directly related to refi mortgages? For example, are refi OTDs higher when interest rates are too low?

#### Conclusion

- Nice paper.
- Some tightening of the empirical work can make it very interesting.
- ▶ I highly recommend it.