Securitization and Screening Incentives: Evidence from Mortgage Processing Time

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Motivation

- From originate-to-hold model to originate-to-distribute (OTD) model

- The rise of securitization
  - lack of screening incentives
  - responsible for the explosion of low-quality mortgage originations prior to the Great Recession

    $\rightarrow$ Keys et al. (2009), Keys et al. (2010), Mian and Sufi (2009), Purnanandam (2010), and Dell'Ariccia et al. (2012))

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- A new measure of lending standards, a different identification strategy

  $\rightarrow$ application processing time at the loan level

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- Data: Confidential HMDA owned by the Federal Reserve Board
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- More careful screening = longer processing time (all else equal)
  - same lender, same county, same time, borrower characteristics
- Approved, home purchased loans only

Securitization and lending standards - identification

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  - if $< \$417$k, sold to the GSEs (conforming, agency MBS)
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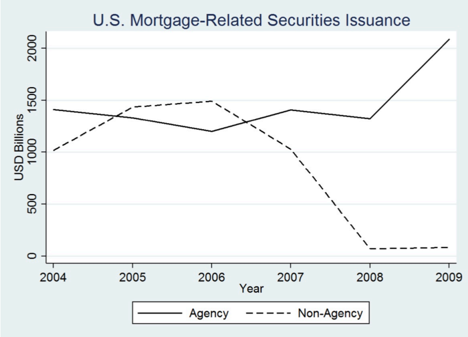
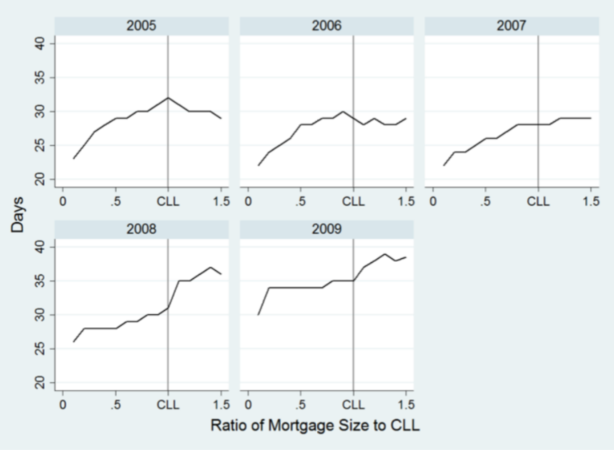
- Private securitization break-down in mid 2007
  - liquid secondary markets for jumbo loans till mid 2007
  - no buyers after the breakdown

Private securitization breakdown



- Jumbo loans not likely to be securitized after the breakdown
- Longer screening time for jumbo, after the breakdown?

What we attempt to capture



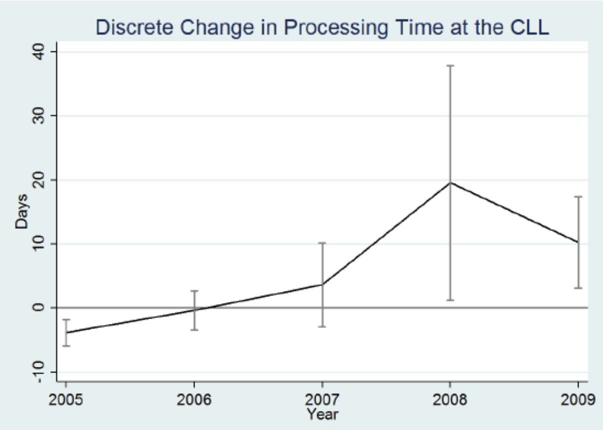
- Knowing that you have to keep the loan,
  you spend more time screening before approving the application

Year-by-year comparison

- For each year (2005 to 2009), we estimate:

$$y_{iclm} = \alpha_l + \alpha_c + \alpha_m + \beta * Jumbo_{iclm} + \gamma * X_i + \epsilon_{iclm}, \quad (1)$$

- β captures the discontinuity at the CLLs



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$\rightarrow$ Diff-in-diff-in-diff instead

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  2. banks with an OTD-based business model
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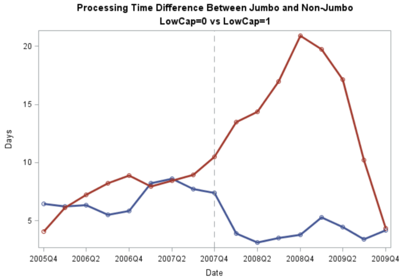
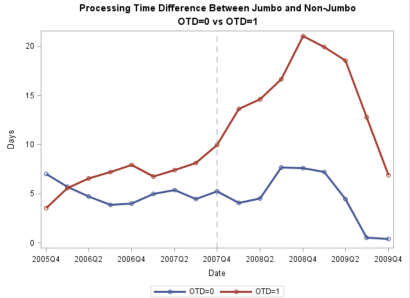
- Assumption: bias from borrower selection did not change differentially between the treatment and the control groups post 2007

Some more cross-sections...





- Low capital banks should have become more careful
- OTD banks should have been more affected

Summary

- Novel measure of ex-ante lending standards
- Banks screen loans less carefully if to be securitized
- Low-quality mortgage originations prior to the crisis...