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# Whose Mortgage is Underwater?

Shane M. Sherlund  
Federal Reserve Board

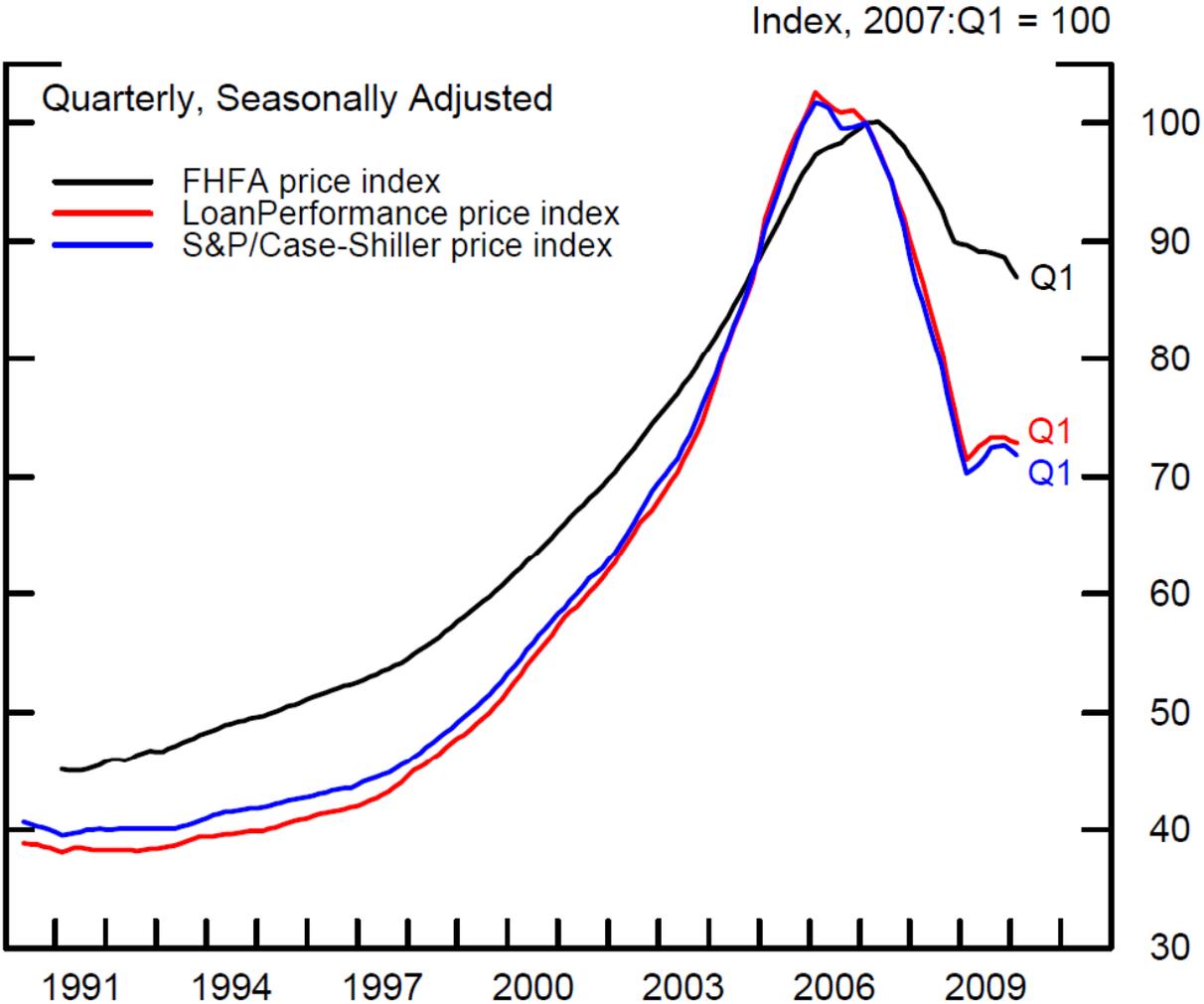
June 2010

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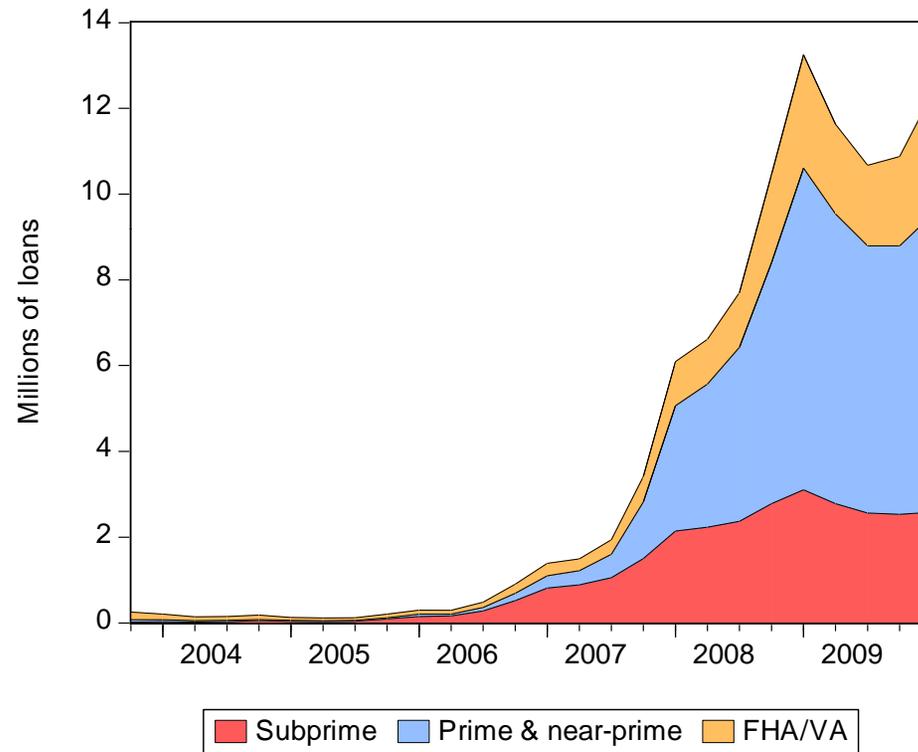
# Introduction

- House prices
  - Data
    - Sources
    - Limitations
  - Underwater mortgages:
    - Product types
    - Vintage
    - Geography
    - Other correlates
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# House Prices

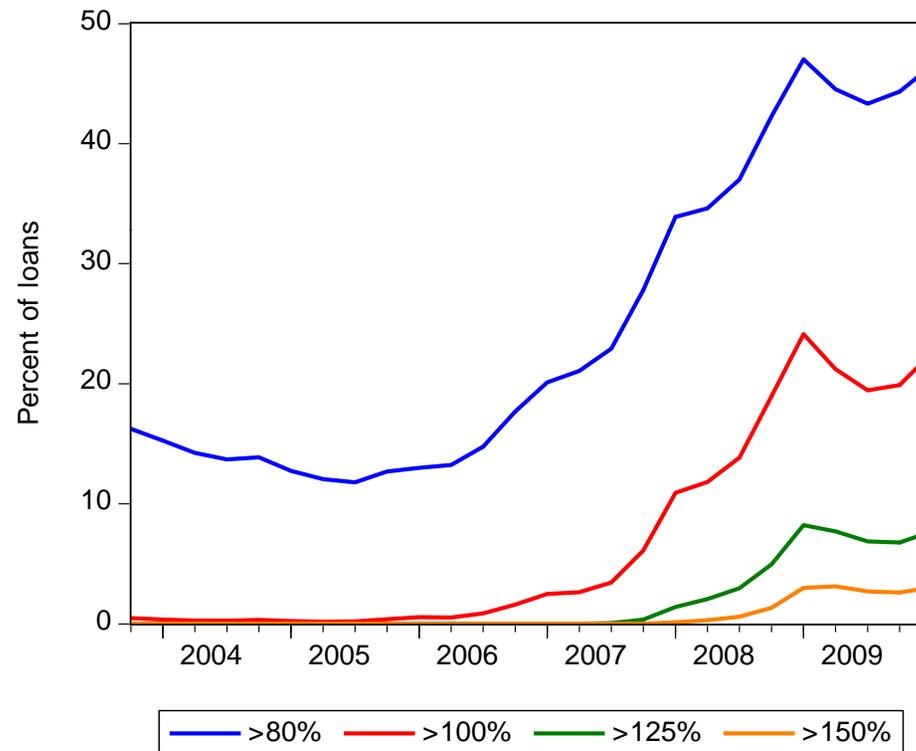


# Underwater Mortgages



Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# Loans with High LTV Ratios



Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

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# Data

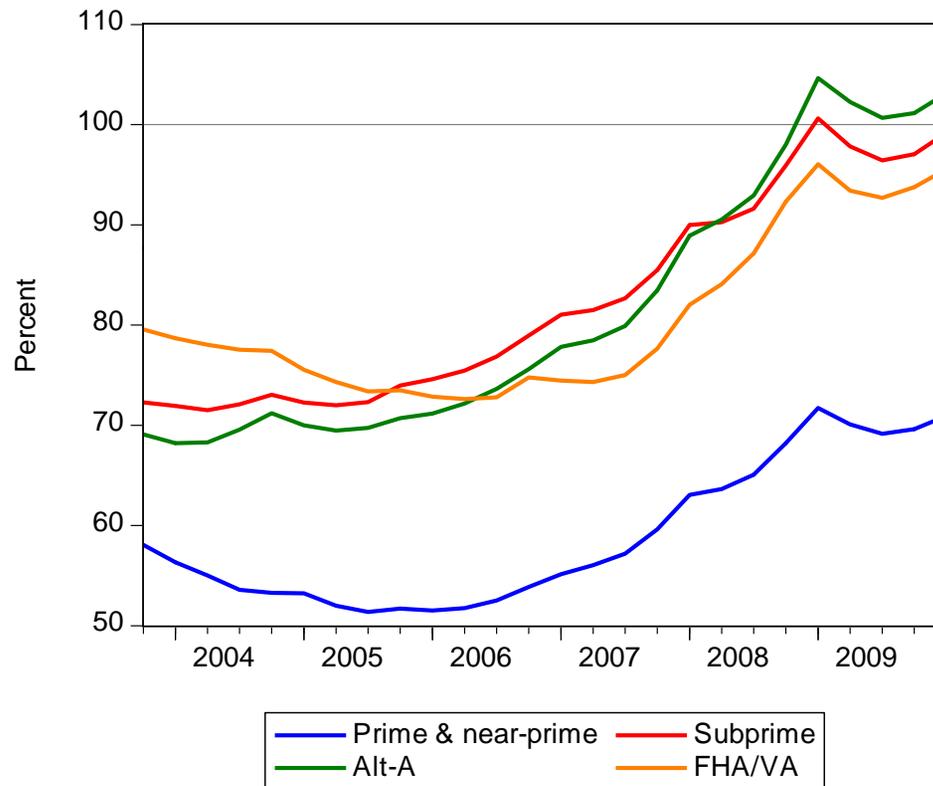
- Prime & Near-Prime, FHA/VA
    - LPS Applied Analytics (McDash)
  
  - Subprime, Alt-A
    - First American LoanPerformance
  
  - House prices
    - First American LoanPerformance
    - ZIP-level LoanPerformance
    - State-level LoanPerformance
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## Data limitations

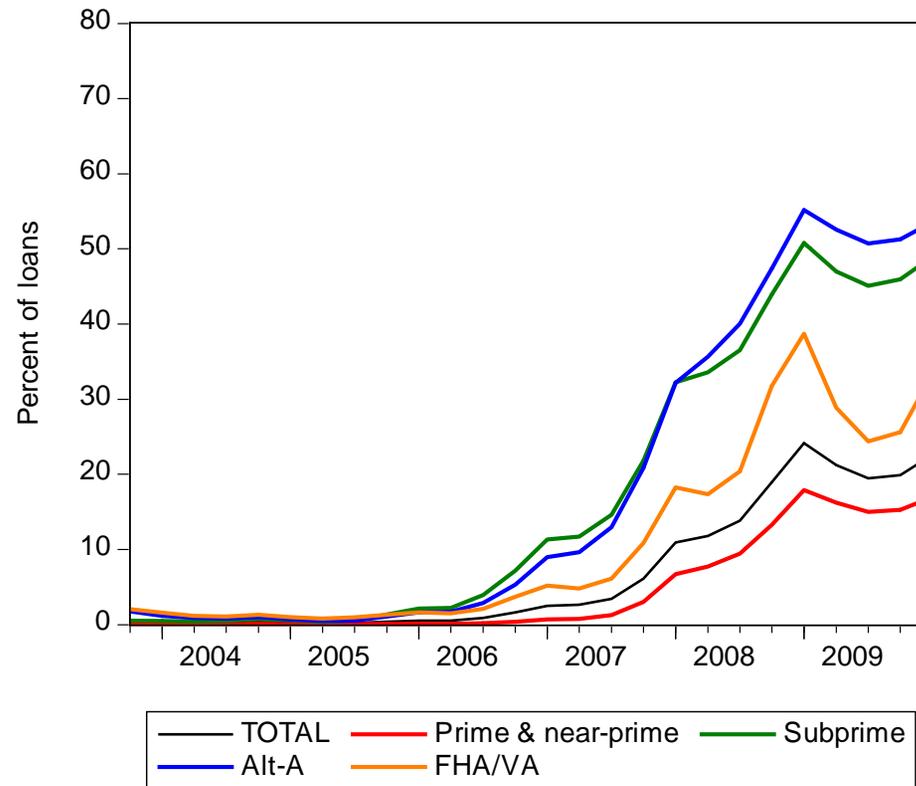
- Prime & Near-Prime, FHA/VA
    - No information on second liens—first-liens ONLY!
  - Subprime, Alt-A
    - Only partial information on second liens
    - Mix of first liens and first and second liens
  - Data coverage
    - MBA National Delinquency Survey weights
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# Mark-to-Market CLTV



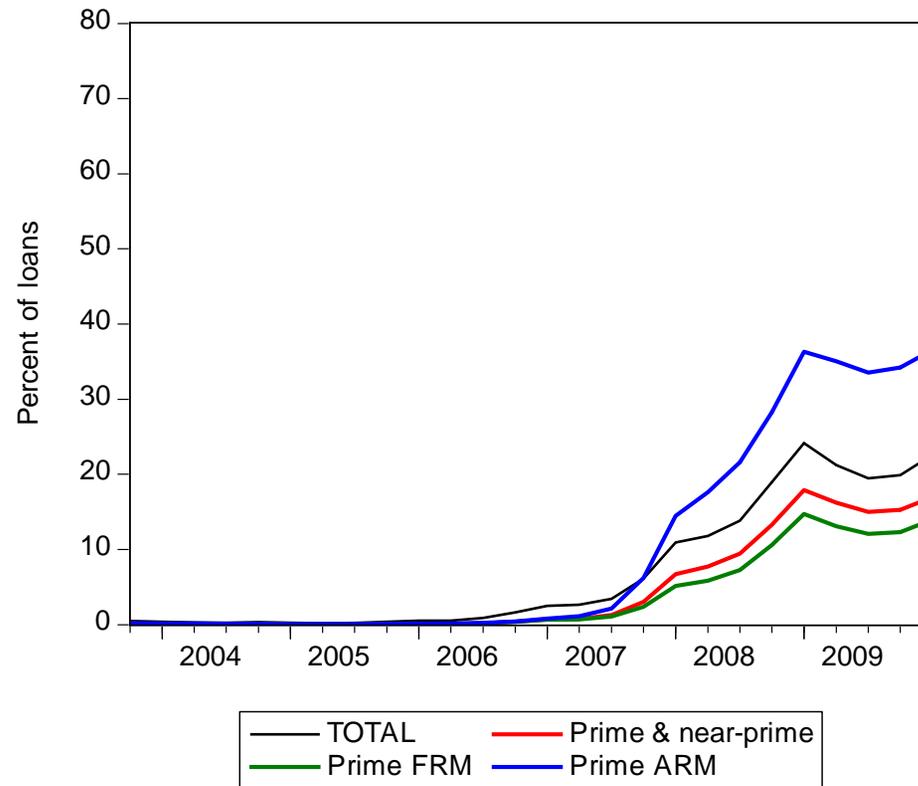
Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# Underwater Mortgages by Product Type



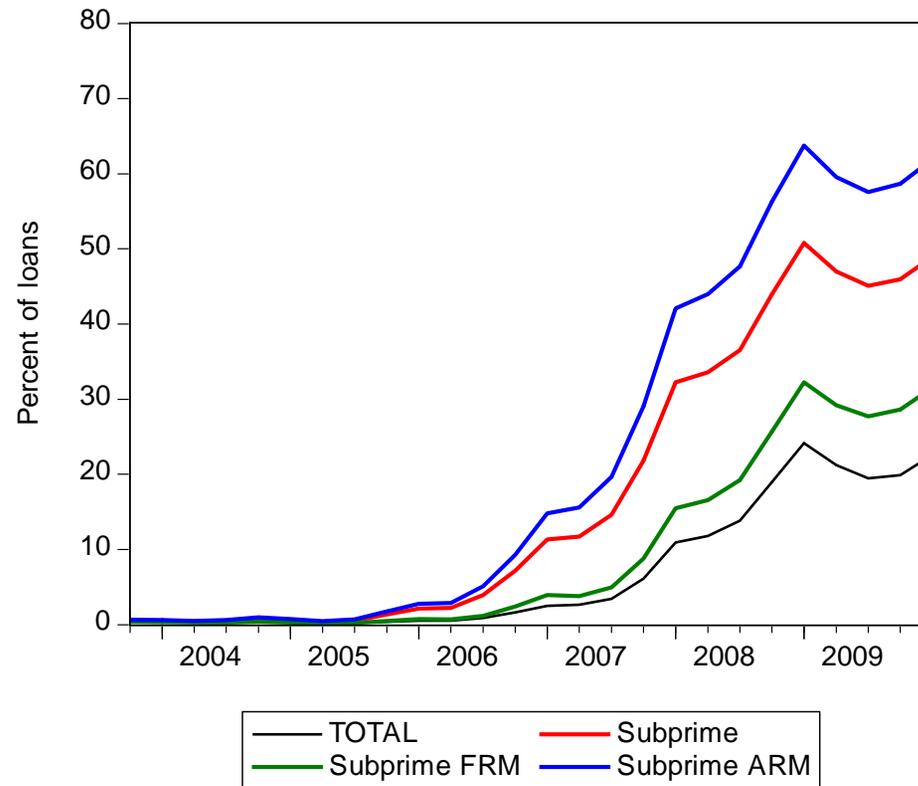
Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# Prime Mortgages



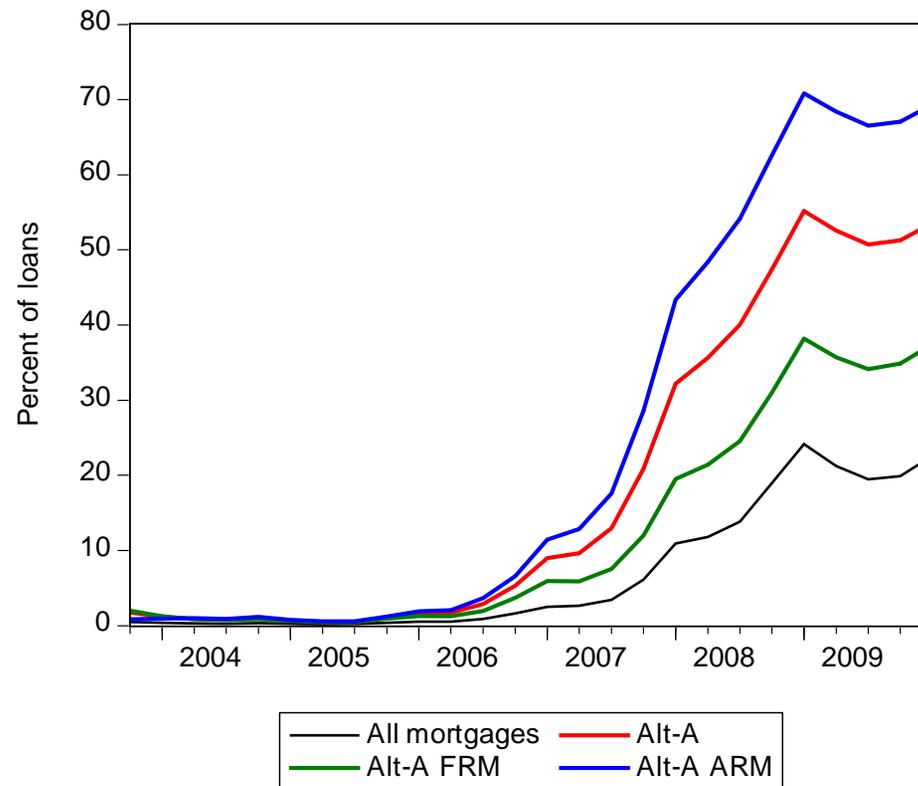
Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# Subprime Mortgages



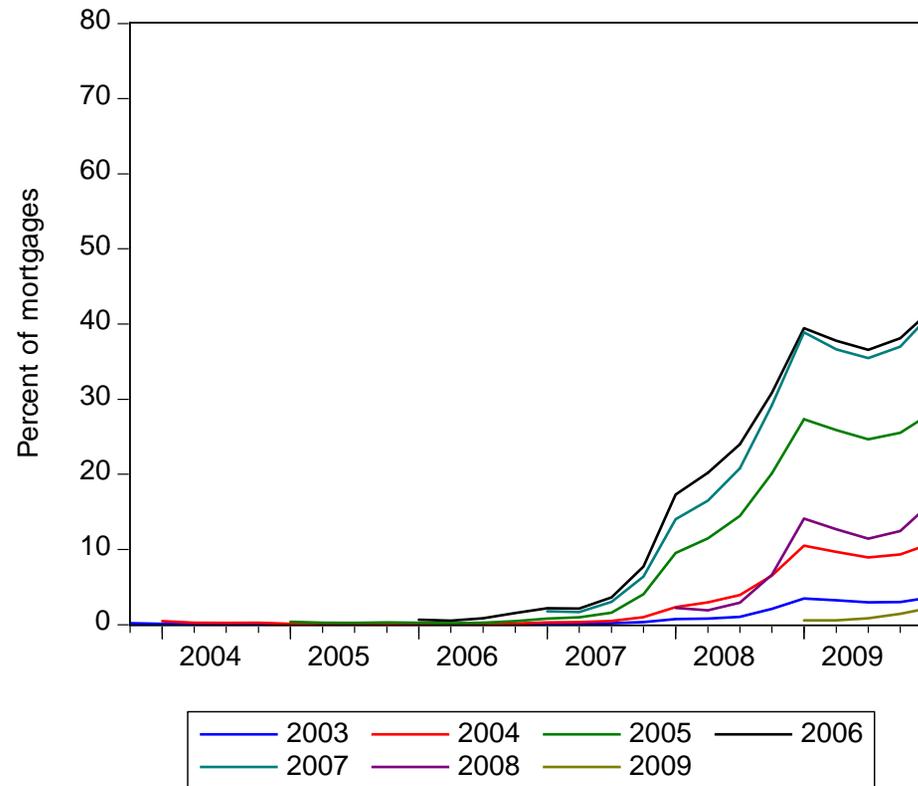
Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# Alt-A Mortgages



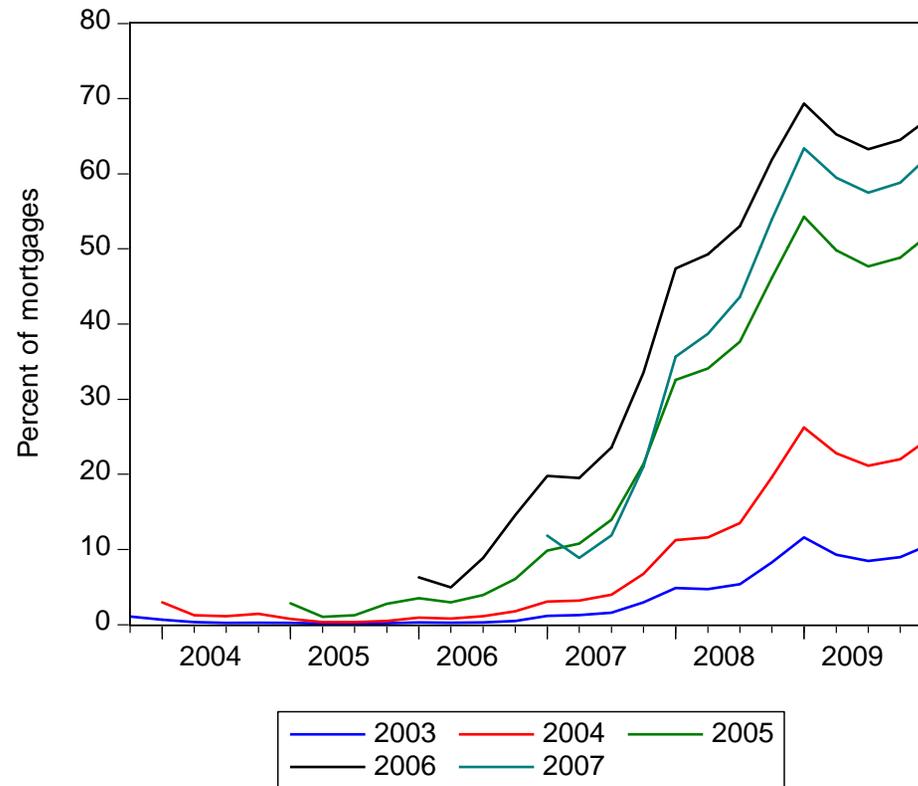
Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# Prime Vintages



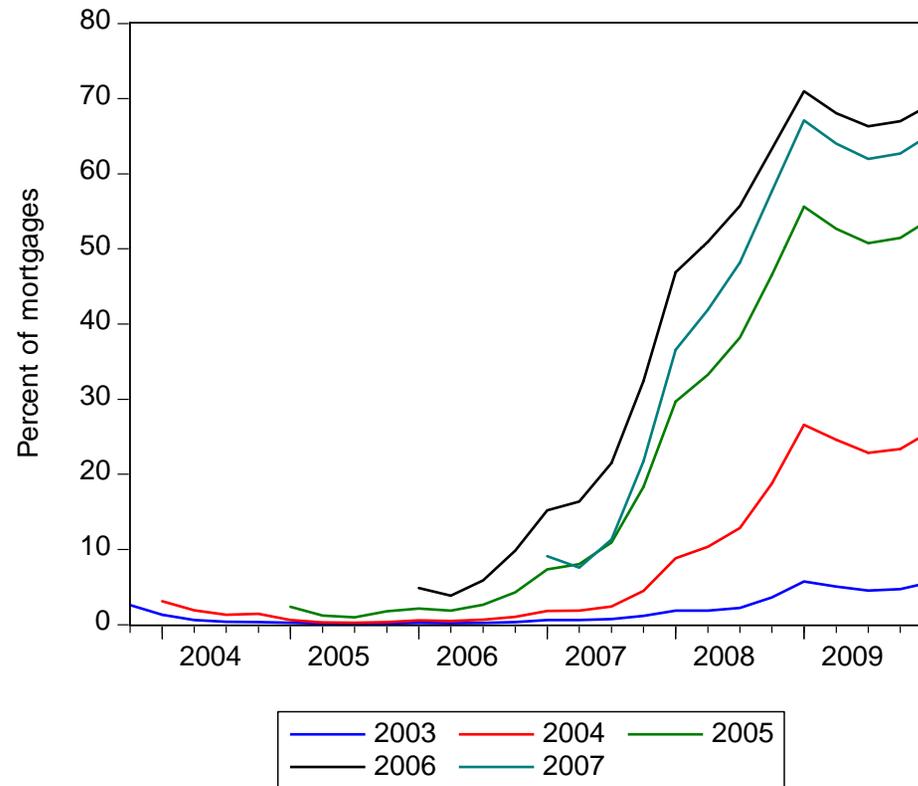
Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# Subprime Vintages



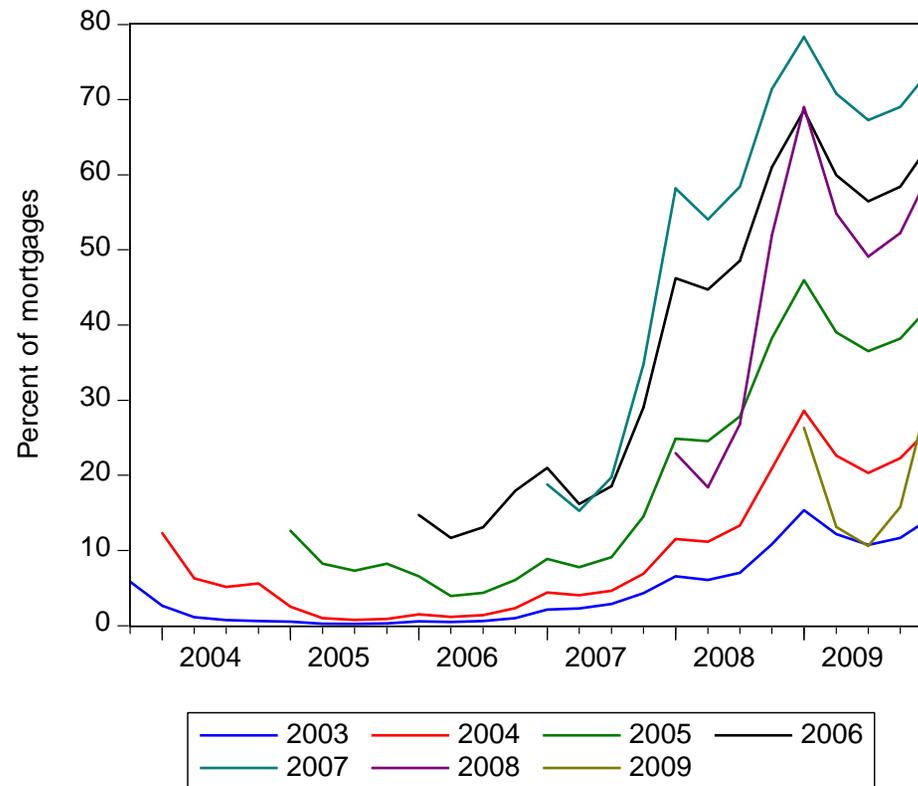
Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# Alt-A Vintages



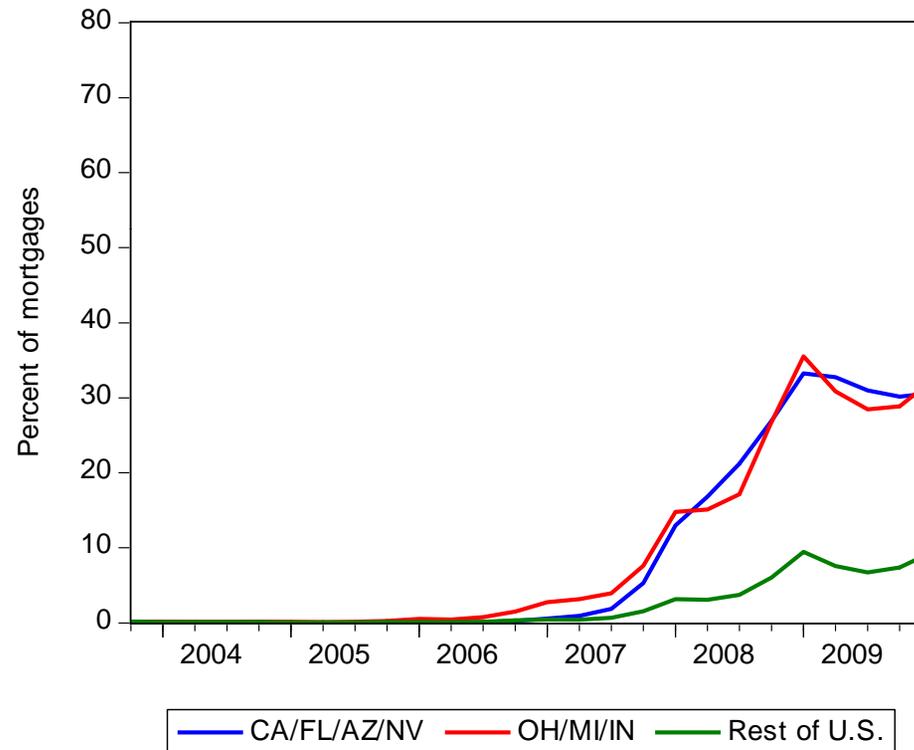
Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# FHA/VA Vintages



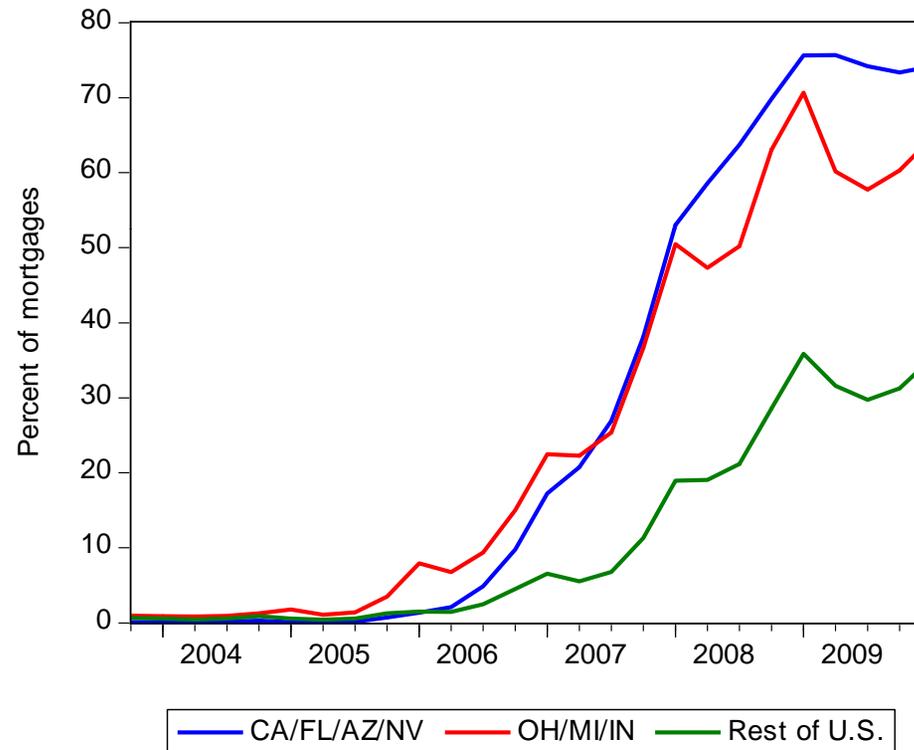
Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# Prime Mortgages by State



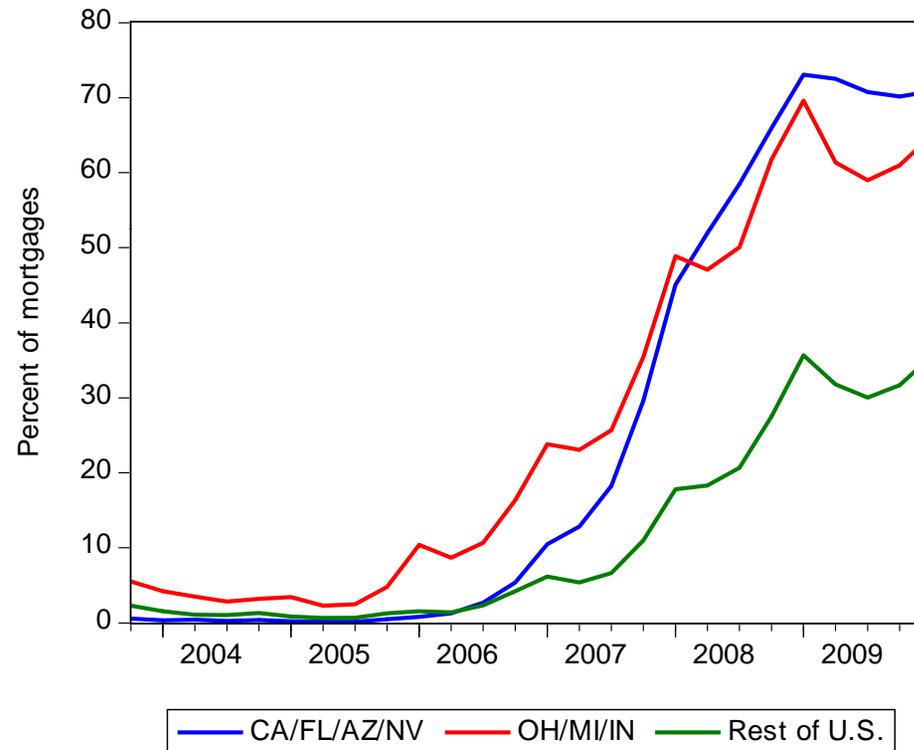
Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# Subprime Mortgages by State



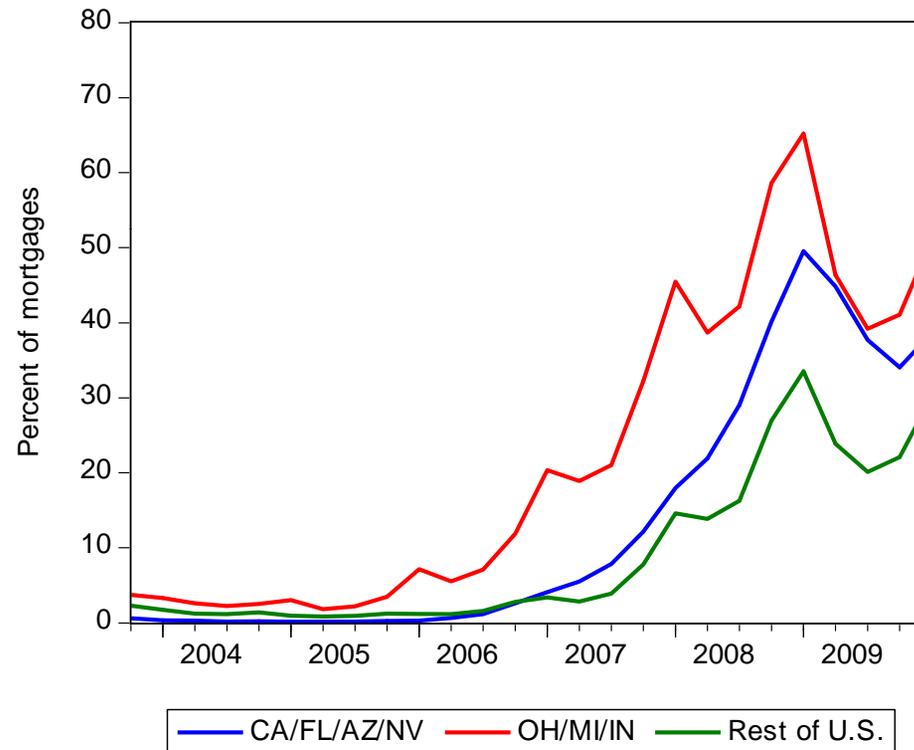
Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# Alt-A Mortgages by State



Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

# FHA/VA Mortgages by State



Source: Calculations from LPS Applied Analytics and First American LoanPerformance data.

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## Evidence from the PSID

- 2009 Housing, Mortgage Distress, and Wealth Data
    - Match to characteristics from 2007 PSID
    - Compare underwater with not underwater borrowers
  - Underwater mortgage borrowers tend to:
    - Be younger
    - Have more children (living at home)
    - Have less college education
    - Have lower family income
    - Have less total wealth (excluding housing)
    - Have higher outstanding mortgage balances
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## Summary

- Incidence of negative equity varies substantially by:
    - Product type (subprime and Alt-A, especially)
    - Vintage (2005-2007)
    - Geography
    - Younger, less wealthy borrowers
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