

The Subprime Crisis from a National Policy Perspective

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Main Points

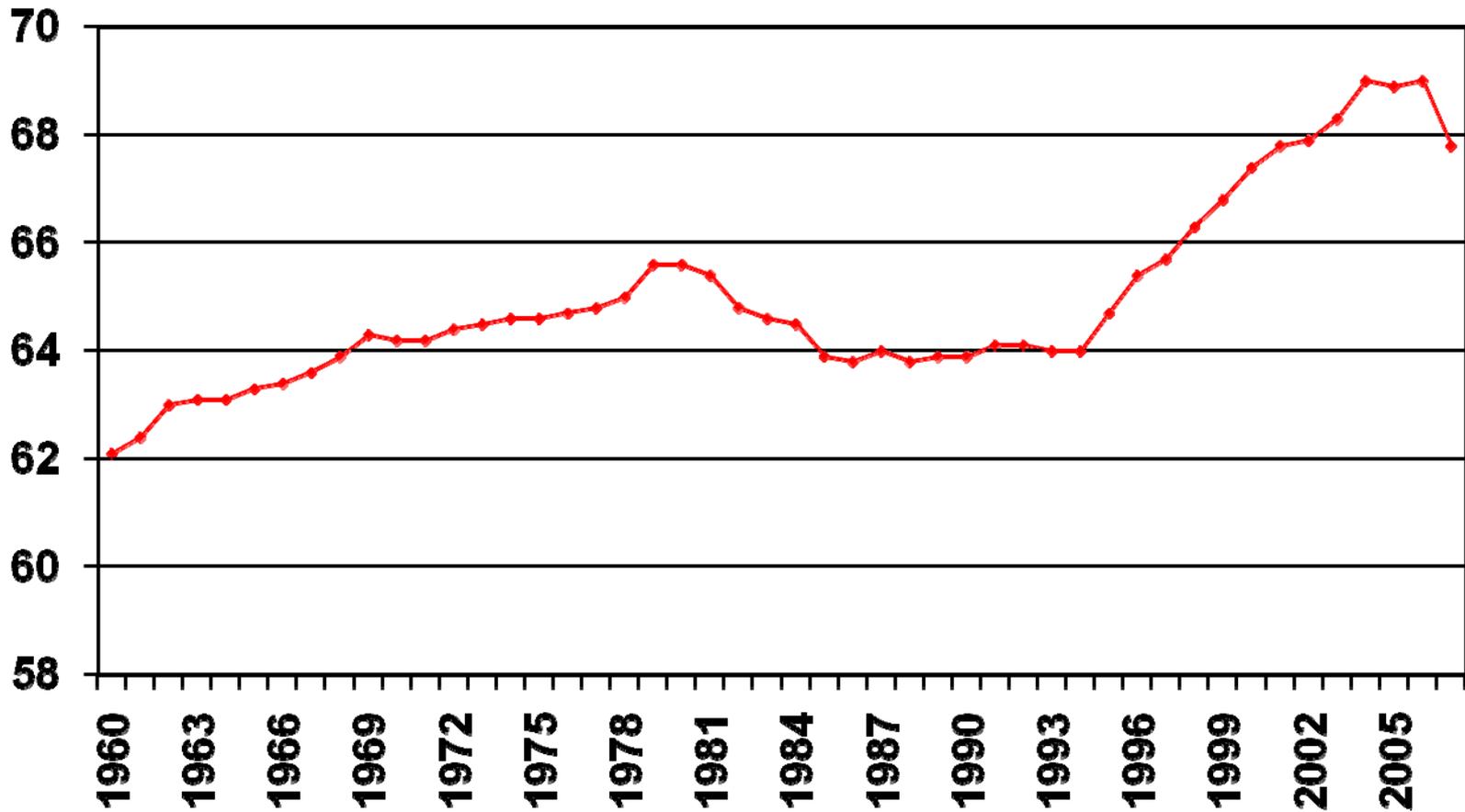
From the National (and Federal) Perspective

- What happened and why
- Goals and fixes in the short run (stabilize housing, financial system, economy; deter financial crisis; global interactions)
- Goals and fixes in the long run (maintain homeownership, avoid recurrence)
- Unanswered questions

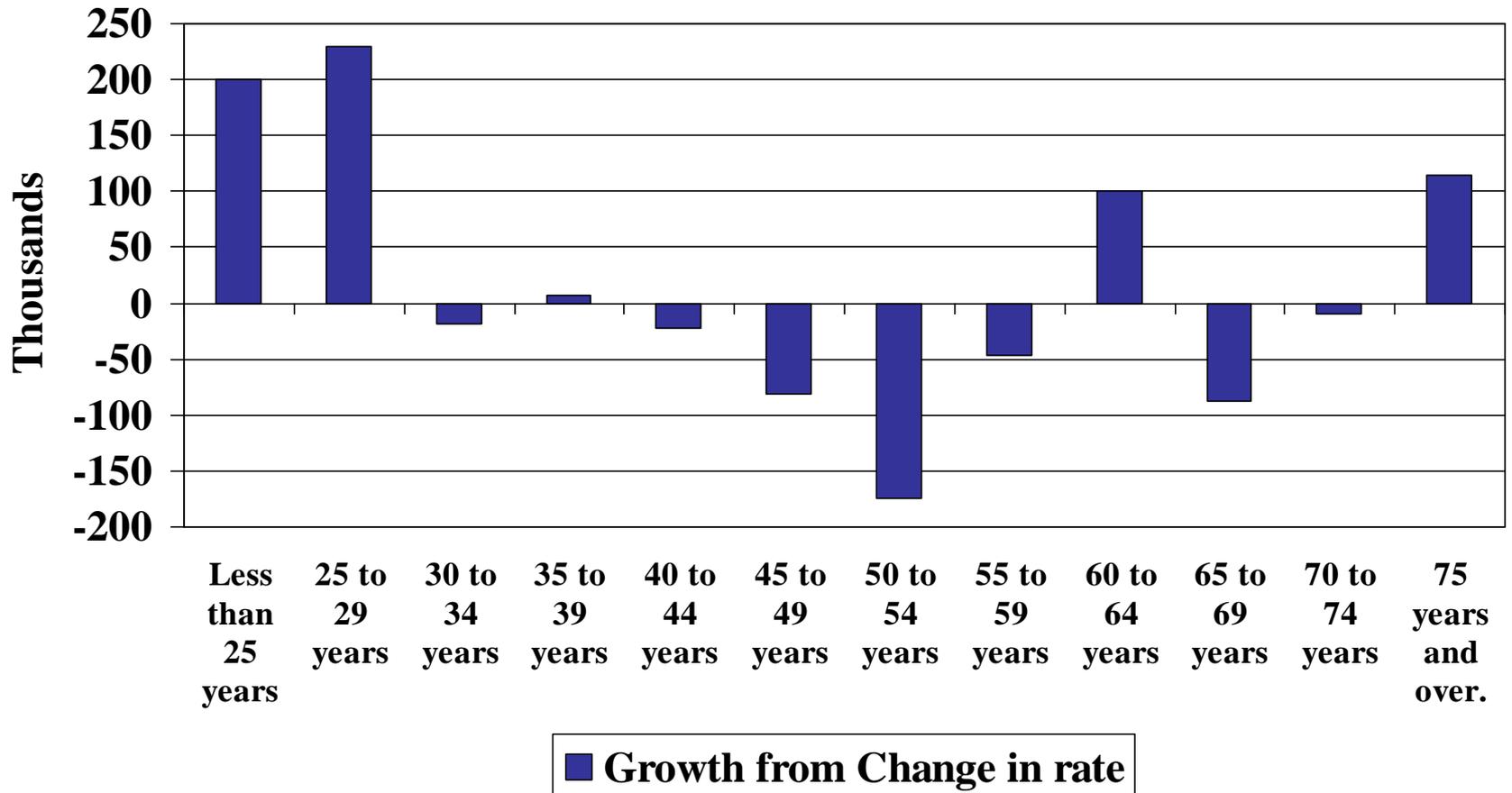
What Happened and Why

- Housing Bubble—Demand, Supply, Prices
 - Underlying support for home ownership; policy to expand base
 - Supply of capital—global capital seeking higher returns
 - Reduced lending standards
 - Increased demand for and supply of units
- Financial Bubble—Underpriced Risk
 - New, underregulated mortgage issuers
 - New financial instruments
 - Rating issues—AAA granted for higher risk levels
 - High leverage, low reserves

Home Ownership Rates

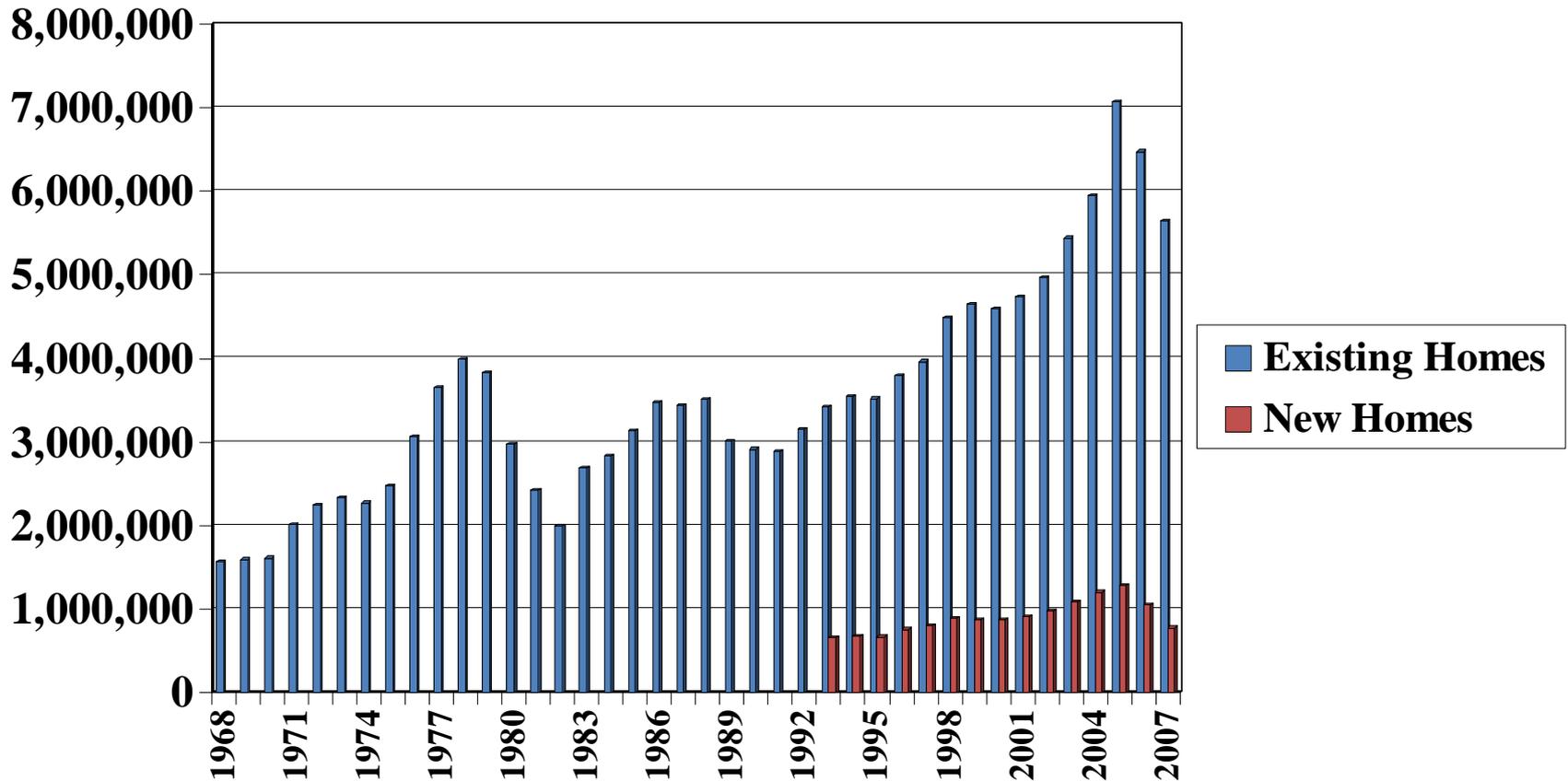


Owner Occupied Household Change Due to Change in Ownership Rate, 2000-2007



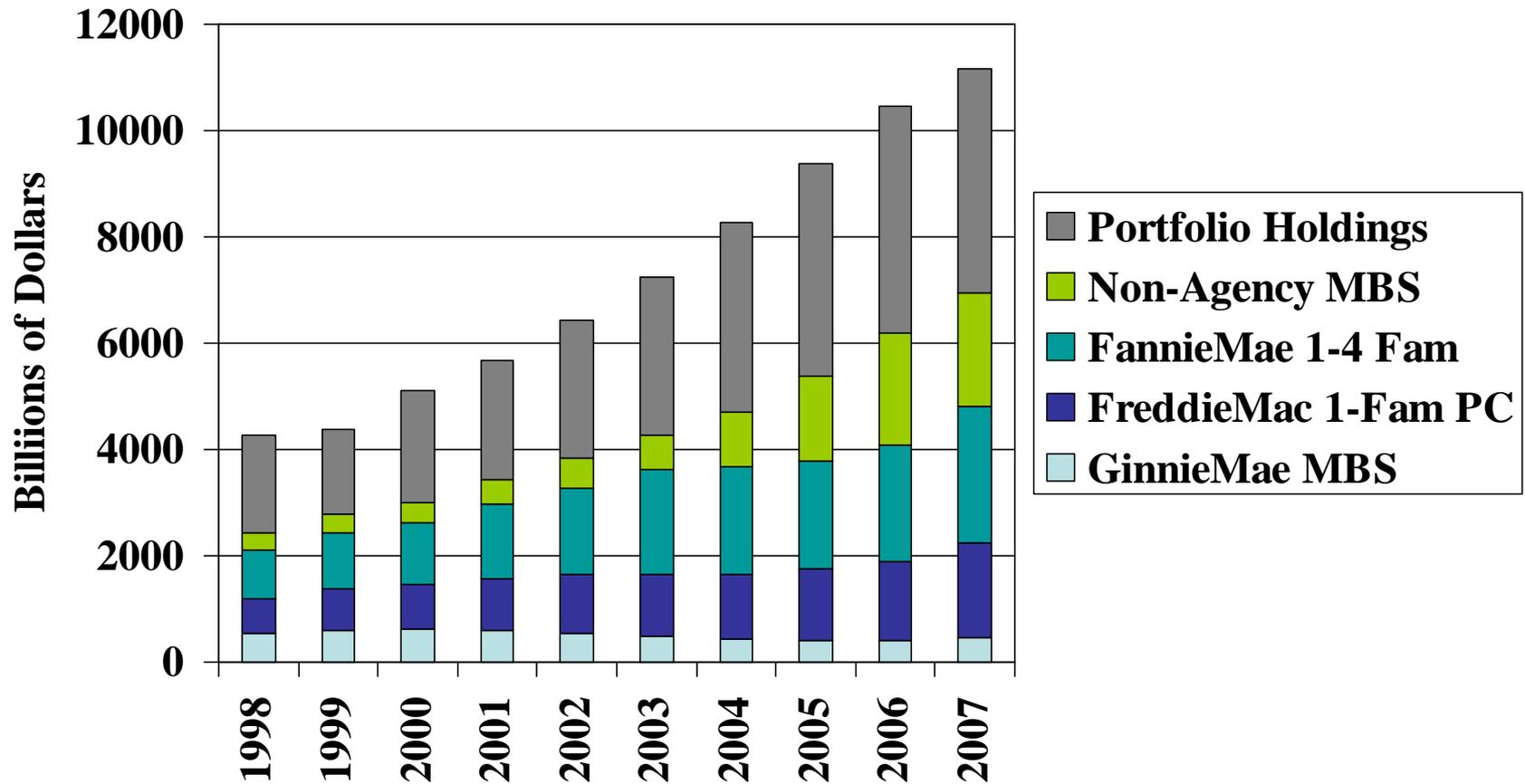
Source: Computed from US Bureau of the Census historic series
<http://www.census.gov/hhes/www/housing/hvs/historic/histt15.html>

US Annual Sales, Existing Homes



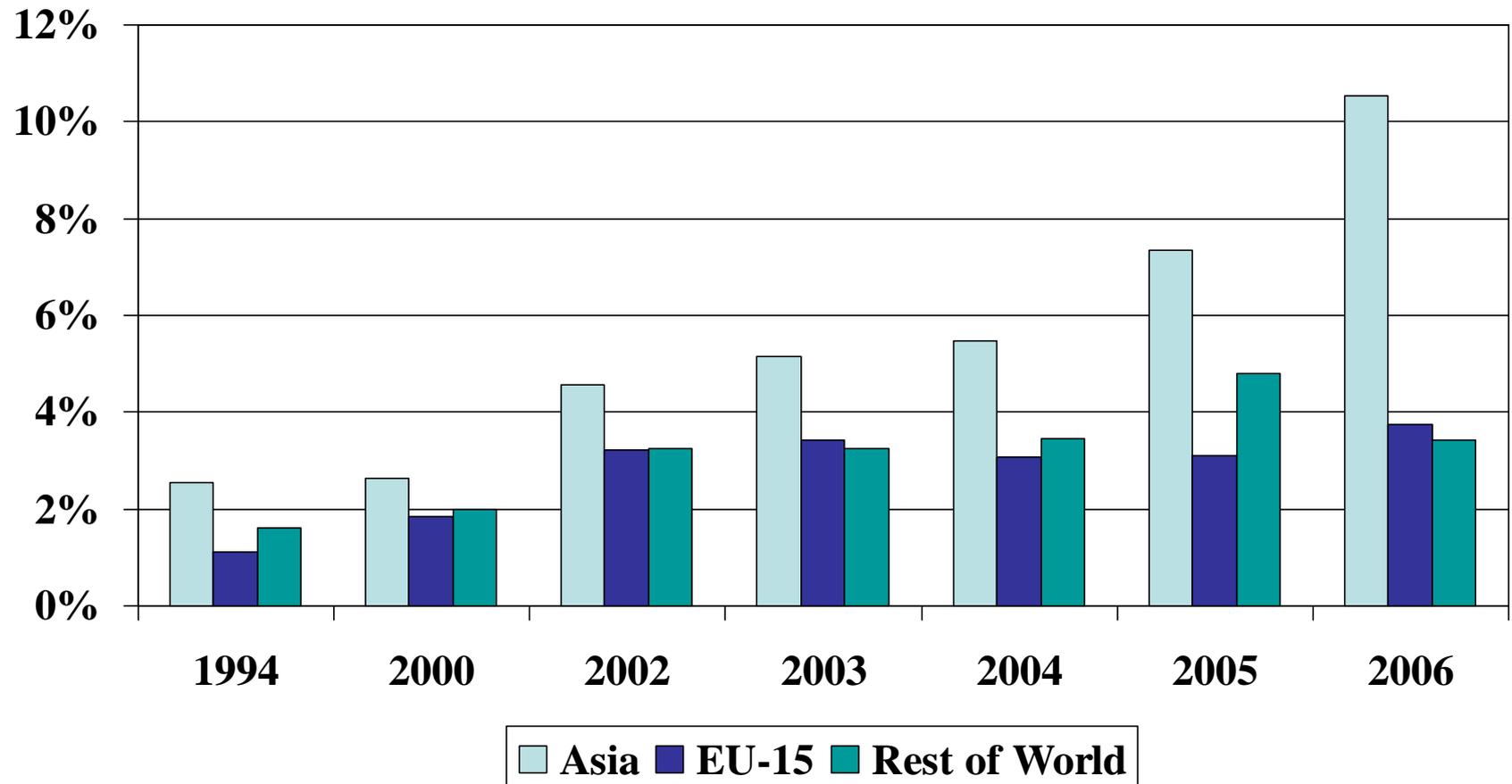
Source: California Association of Realtors; National Association of Realtors, US Bureau of the Census

Trend in Mortgage Servicing Outstanding 1-4 Family



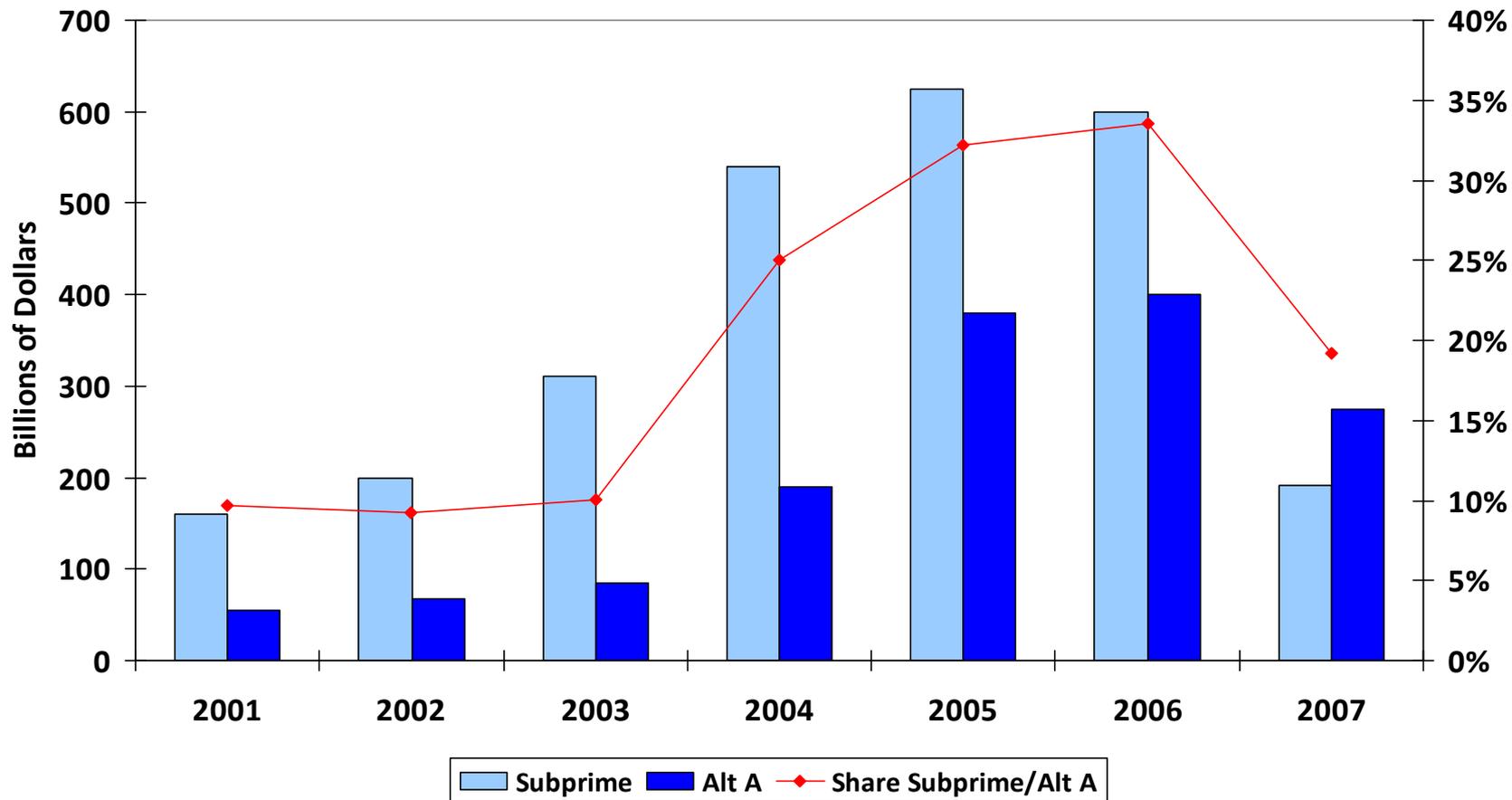
Source: Inside Mortgage Finance, July 2008.

Foreign Holdings of US Agency Bonds and MBS by Region, as Shares of Total Agency Securities Outstanding



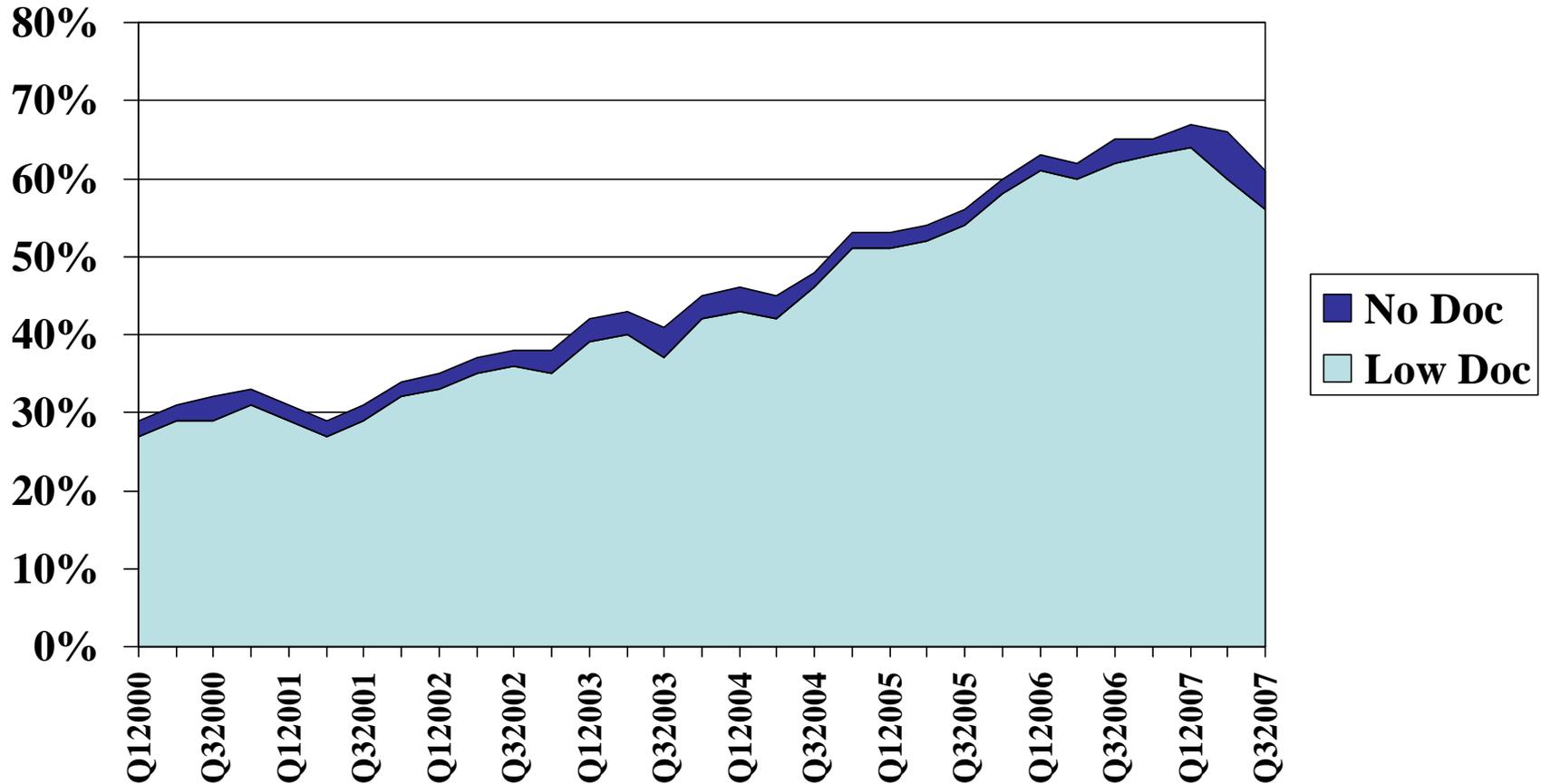
Source: US Treasury TIC Data

Subprime and Alt A Mortgage Originations— Value and Share of Total Originations



Source: Inside Mortgage Finance, May 2008.

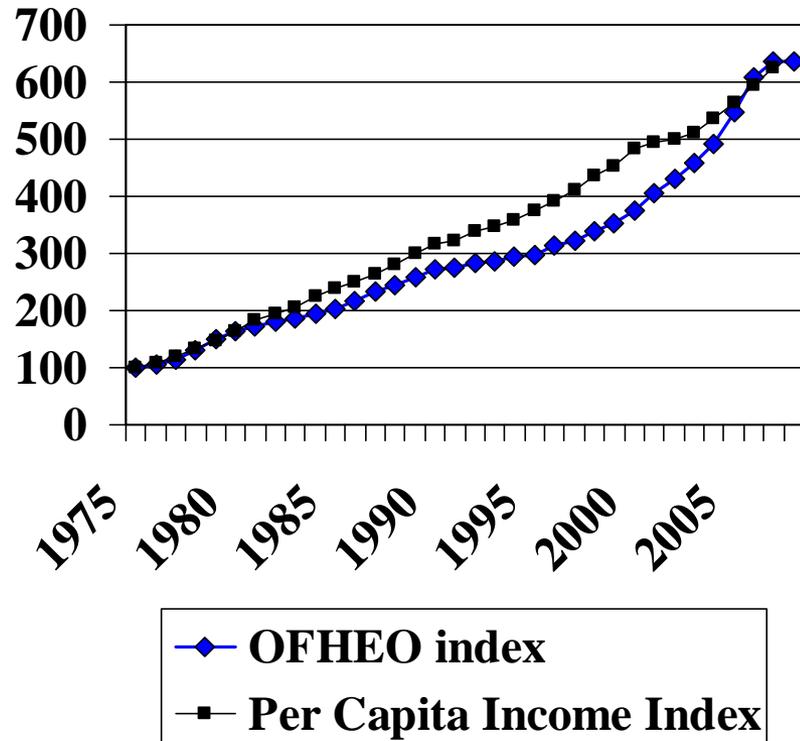
Percent of Loan Value Low-Doc or No-Doc (All Except Agency Prime Loans, 2000 Q1 to 2007 Q2)



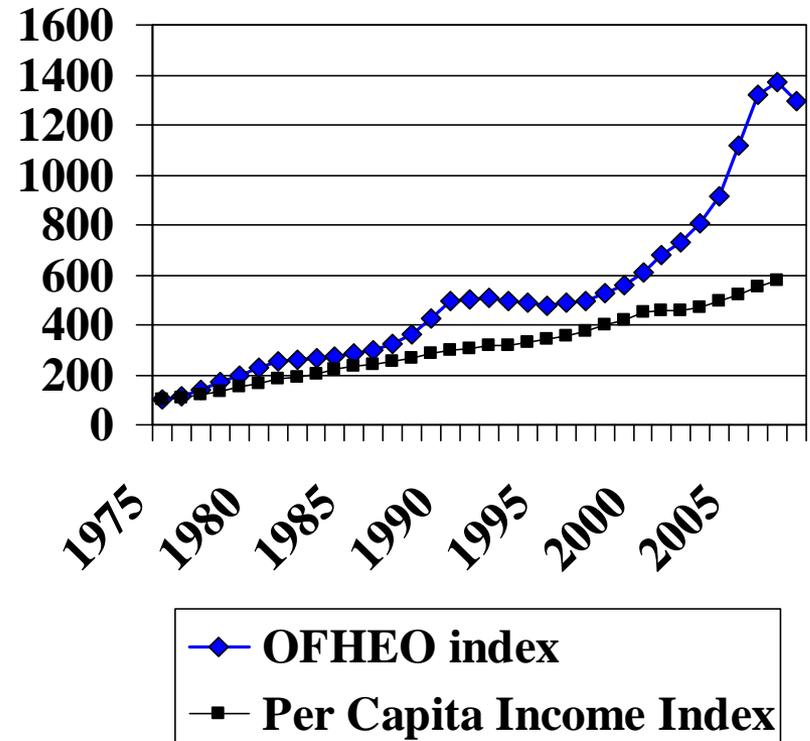
Source: Bardhan, Edelstein and Kroll using First American CoreLogic Marketing Reports, Loan Performance data, May 2008.

Regional Differences in Housing Price Growth 1975-2008

US Indices



Far West Region



Source: Indices created by authors using Office of Federal Housing Enterprise Oversight index (adjusted to 1975 base); US Bureau of Economic Analysis data. ©Kroll, FCREUE

Understanding Variation in Exposure and Experience Can Help Shape Policy

- Wide variation within the US in housing markets (median 2007 home value ranges from \$88,000 in Mississippi to \$536,000 in California)
- Wide variation in exposure to subprime loans (low of 6% in South Dakota, high of 20% in Nevada)
- Share of subprimes in foreclosure range from 3% in Utah to 18% in Michigan
- Factors, such as age, household size, ownership rates, and government regulation, can influence the level and outcome of exposure.

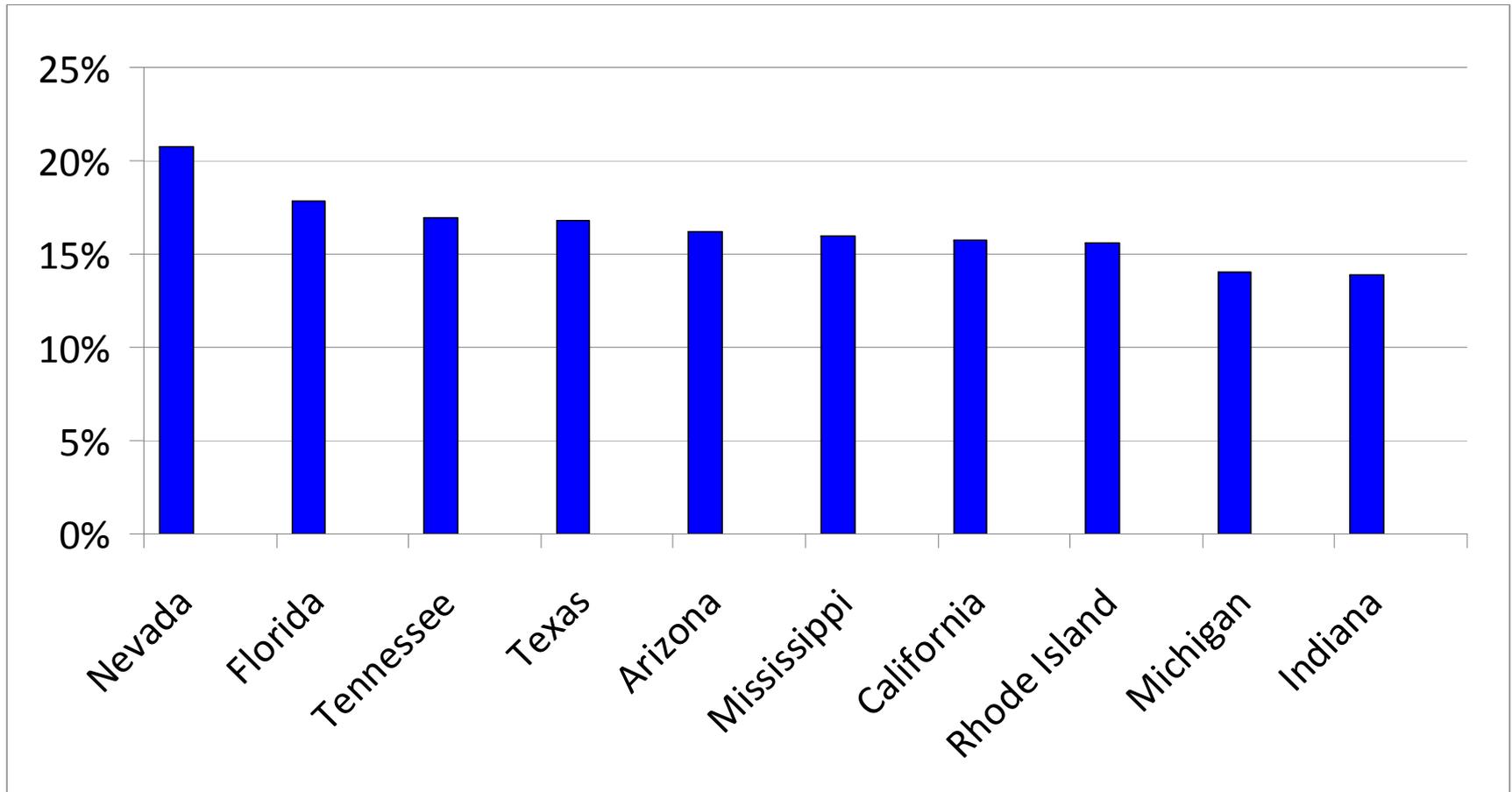
Cross-State Regression Results: Determinants of Subprime Share in Total Mortgages

- More subprime loans where populations were younger (median age)
- More subprime loans where home price and price growth rate higher, and higher share minority
- Lower per capita income drew higher shares of subprime
- State with stronger regulatory base (financial administrative expenditures; state employment, etc.) showed lower shares of subprime

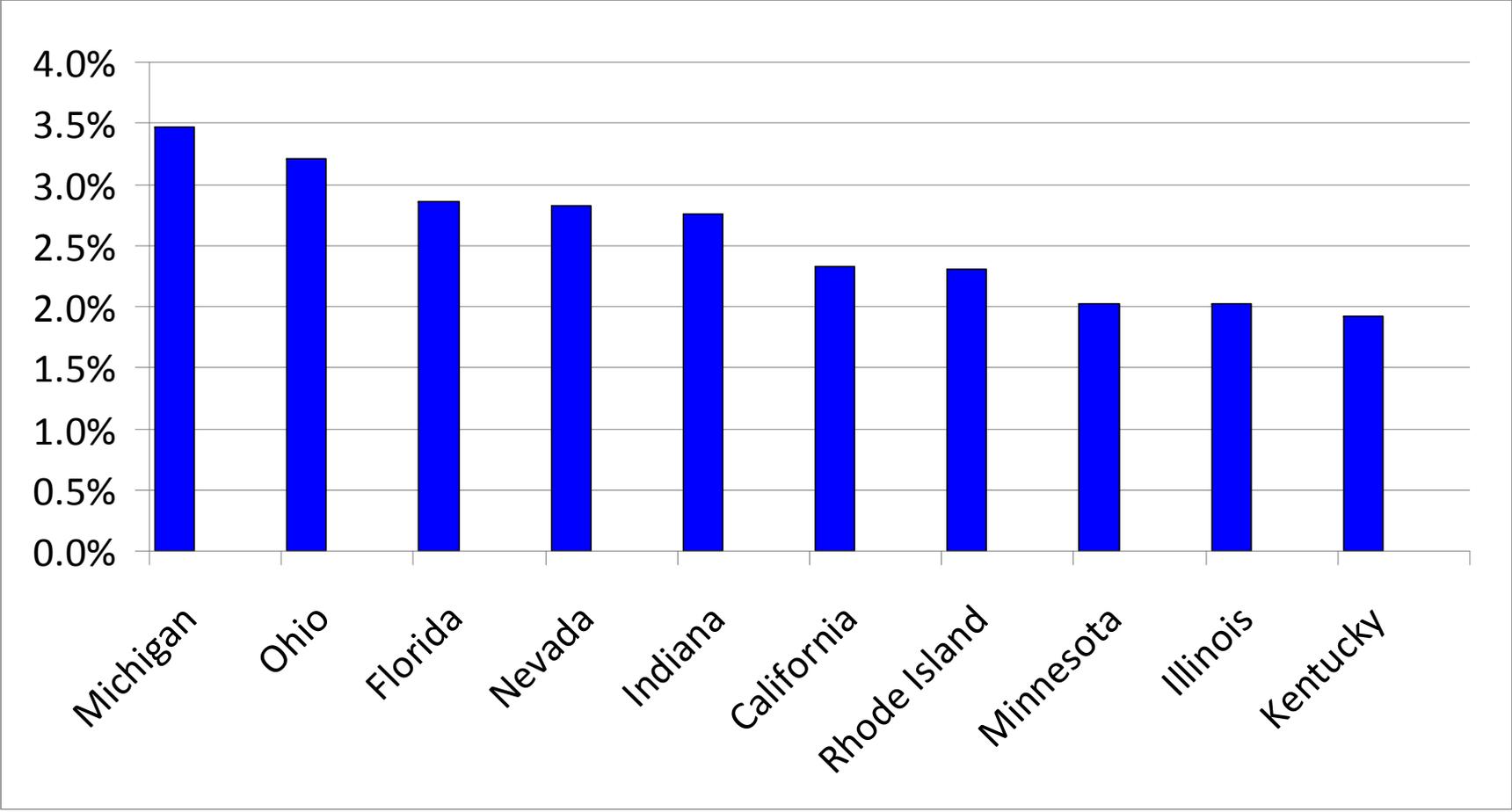
Cross-State Regression Results: Determinants of Foreclosure Share in Total Mortgages

- Higher subprime share => higher foreclosure rate
- Foreclosures negatively related to regulatory stance, even when subprime share taken into account
- Higher minority share => higher foreclosure rate
- Complex relationship between subprime share and foreclosure share on one hand, and home price change and age on the other

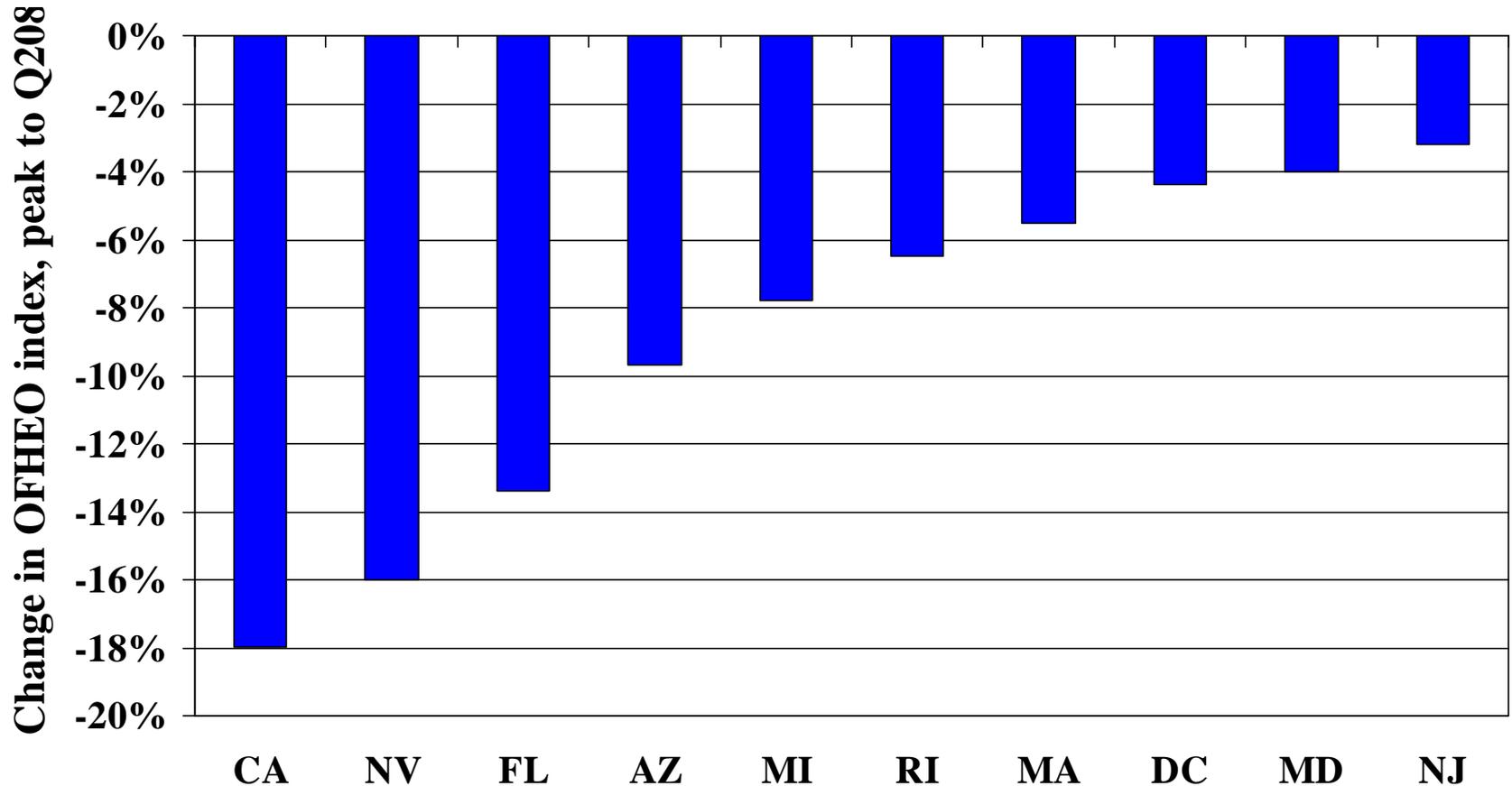
Share of Subprime in Total Mortgages Outstanding: Top Ten States



Share of all Mortgages in Foreclosure 4Q 2007: Top Ten States



States with Largest Loss in Home Value from Peak to Q2 2008



Source: Bardhan, Edelstein and Kroll from OFHEO data.

Issues in Resolving the Problem

- No good measures on the size of the problem
- Will stabilizing housing market resolve the financial crisis?
- Will stabilizing the financial market resolve the housing problems?
- Implications of short term fixes for long term consequences

Subprime in Perspective

- 128 million housing units in the US (2007)
- 59 million loans outstanding (1/2008)
- 6.9 million subprime (1/2008)
- 2.9 million delinquent loans (1.2 prime/1.7 subprime; 1/2008)
- 1.1 million in foreclosure (0.39 prime/0.76 subprime; 1/2008)

Source: US Census, *American Factfinder*; First American CoreLogic, LoanPerformance data.

Uncertainties in Estimating Subprime Vulnerability— Some Back of the Envelope Attempts

of Subprime Loans, 12/07—
6.95 Million

X

Average Loan Value—
\$100,000? = \$695 Billion
\$200,000? = \$1.4 Trillion
(may be more)

X

Failure Rate ?= f(income, home value, ...); currently:
10% (foreclosure)
24% (delinquent 60+)

\$70-\$140 Billion

X

\$170-\$340 Billion

Share that must be covered (lost value)?

10%--\$7-\$34B

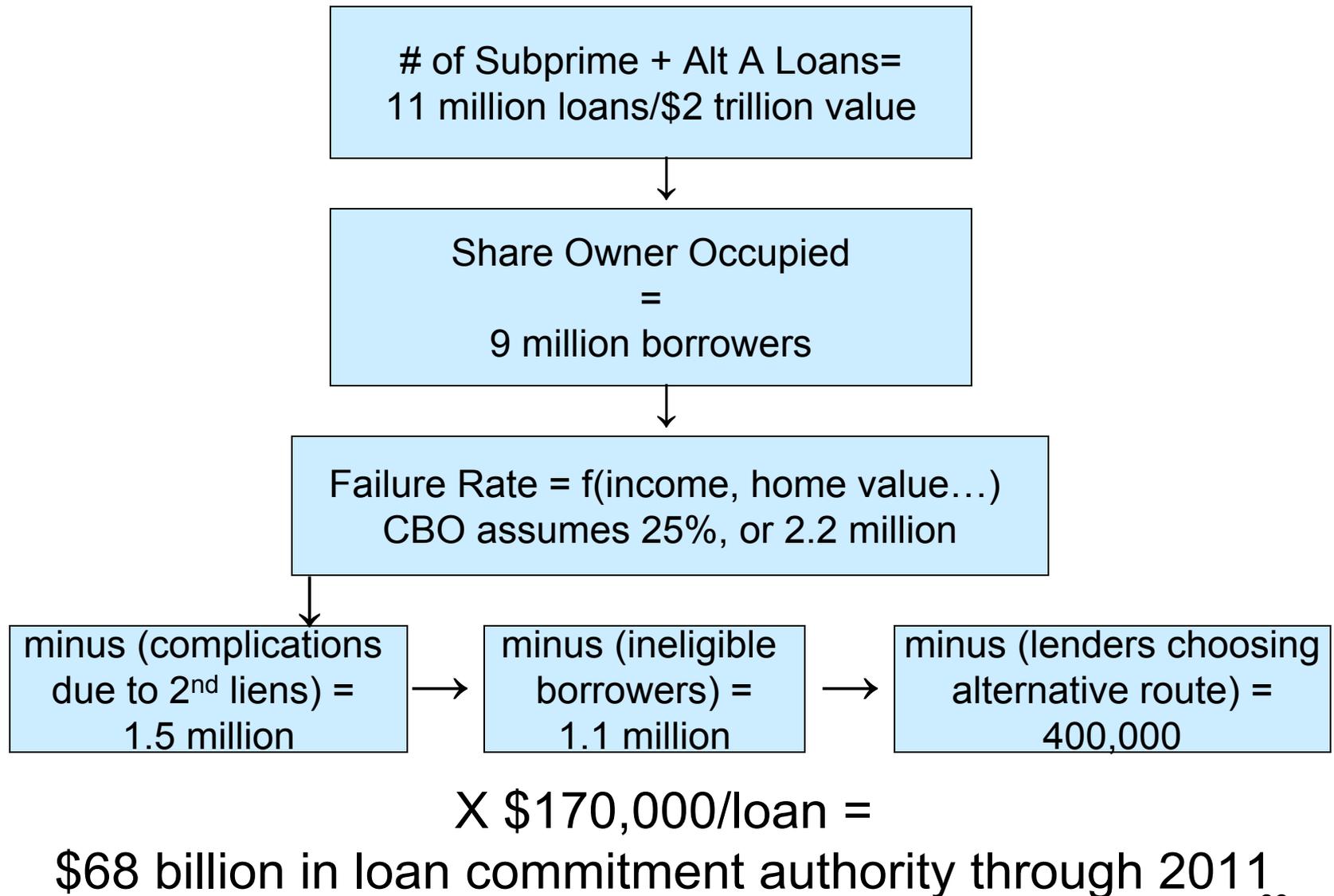
20%--\$14-\$78B

30%--\$21-\$100B

50%--\$85-\$170B

WHO EXPERIENCES THE LOSS?

Subprime Vulnerability—CBO Estimate

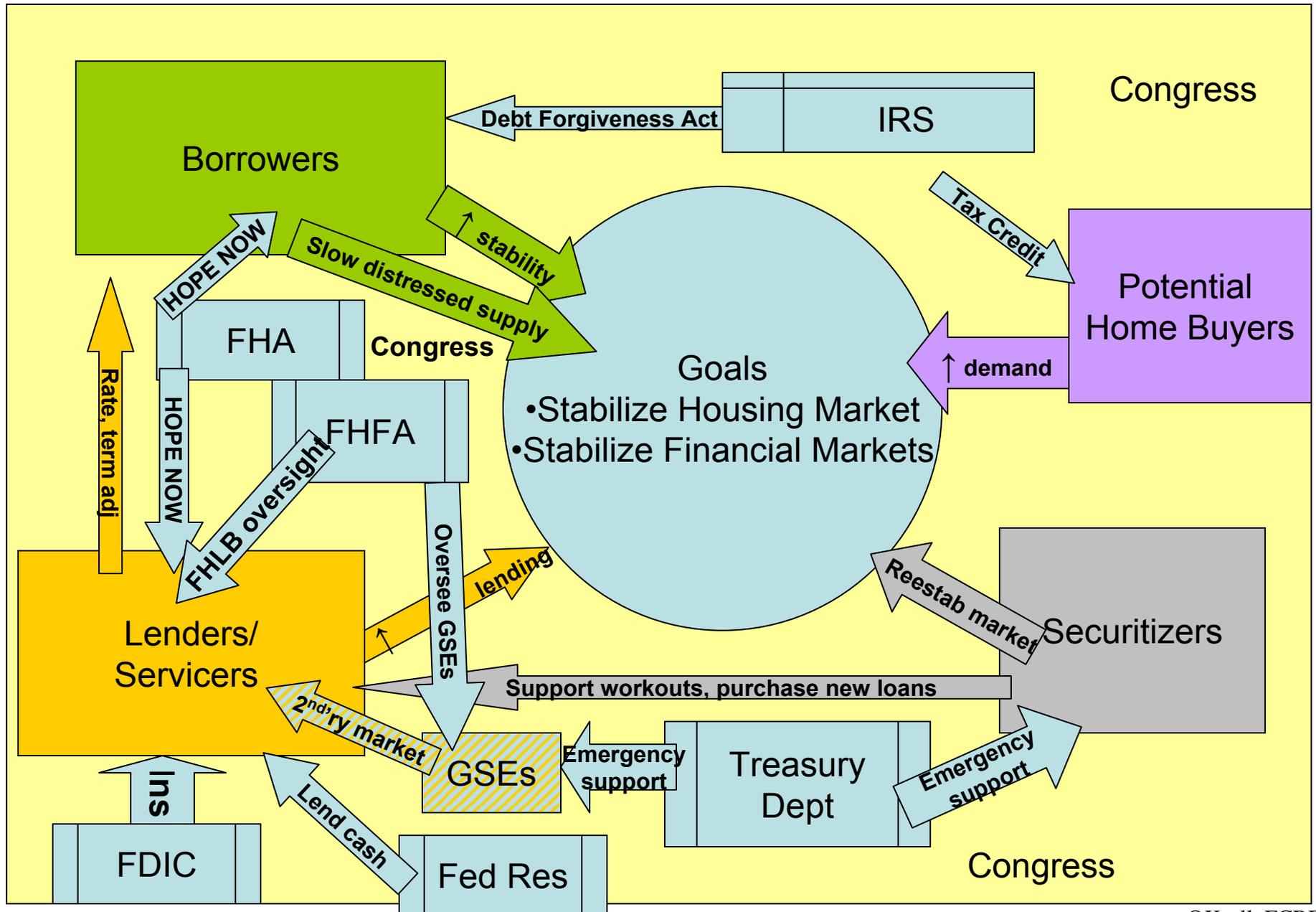


Source: CBO cost estimates April, June and July 2008.

Financial System Bailouts

- Term Securities Lending Facility (TSLF)--Up to \$200 billion available in short term loans to largest financial firms
- Bear Stearns/ JP Morgan deal \$29 billion loan guarantee
- Fannie/Freddie “conservatorship” (nationalization?) Up to \$200B preferred stock purchase agreement; other indefinite guarantees
- AIG \$85 billion “loan”

Credit Market Recovery Strategies



Stabilizing the Housing Market—Goals

- Retain high home ownership rates
- Arrest drastic value slide
- Maintain ownership incentives for households with negative equity
- Normalize new and existing market activity

Stabilizing the Housing Market

Strategies and Tools

- Stem Foreclosures
 - Interest rate adjustments on ARMS
 - Renegotiate terms
 - Equity sharing
 - Related tax policies
- Stimulate Homebuying
 - Downpayment tax credits
 - Federal support of GSEs
 - Federal intervention in financial market
- “Bank” Foreclosed Properties
 - Housing trust
- State and Local Government Support

Stabilizing the Housing Market Issues

- Should the homeownership goal be revisited?
Balance between homeowner and renter assistance
- Which borrowers should get assistance?
- What about the implications of price support?
- What about those who chose not to get into the market?
- Renters?
- Segmentation of securitized mortgages

Stabilizing Financial Markets

- Goals
 - Maintain liquidity in mortgage market
 - Minimize destabilization from institutional failures
 - Efficient securitization
 - Restore viability of Fannie and Freddie
 - Reestablish confidence in broader financial markets
 - Avoid international financial crisis
- Tools
 - Infusions of capital
 - Guarantees
 - Takeovers
- Issues
 - Moral hazard
 - Equity
 - Effectiveness (short term vs long term)

Long Term Policy Perspective

- No Single Policy is the Silver Bullet
- Complex Benefits-Costs Require Multi-faceted Solutions
- Regional-State Differences Require Regionally Differentiated Approaches—Role for state policy in mortgage regulation and housing support
- Reinvigorate Securitization Process with a difference (financial regulation)