



Fannie Mae

The Home Price Outlook

Are We Experiencing a Housing “Bubble”?

May 5, 2005

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“A bubble may be defined loosely as a sharp rise in the price of an asset or a range of assets in a continuous process, with the initial rise generating expectations of further rises and attracting new buyers – generally speculators interested in profits from trading in the asset rather than its use or earnings capacity.”

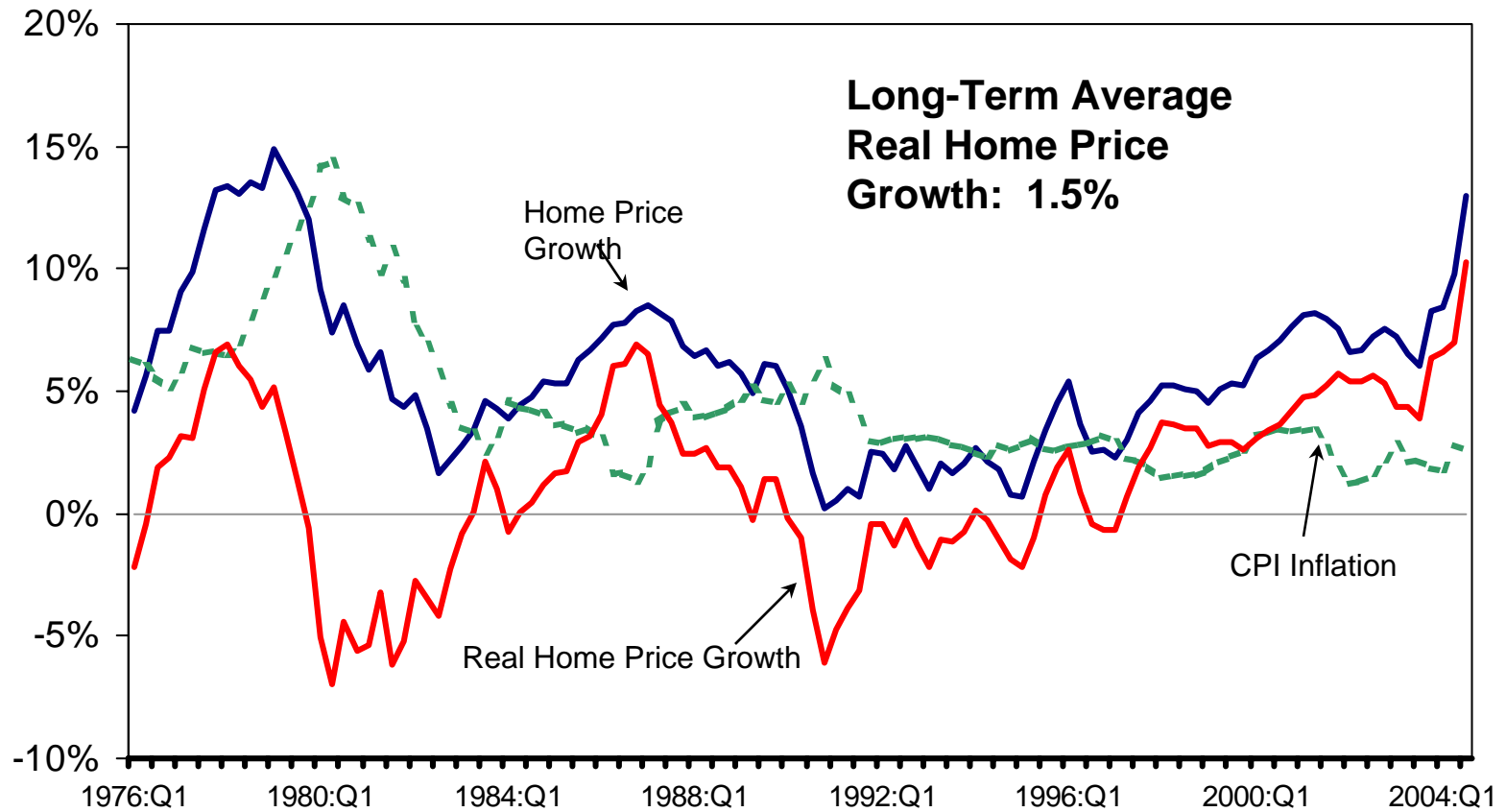
Charles Kindleberger*, *The New Palgrave, A Dictionary of Economics*

****Professor Emeritus at MIT, and author of “Manias, Panics, and Crashes”***

Have the Potential Indicators of a Housing Bubble Intensified?

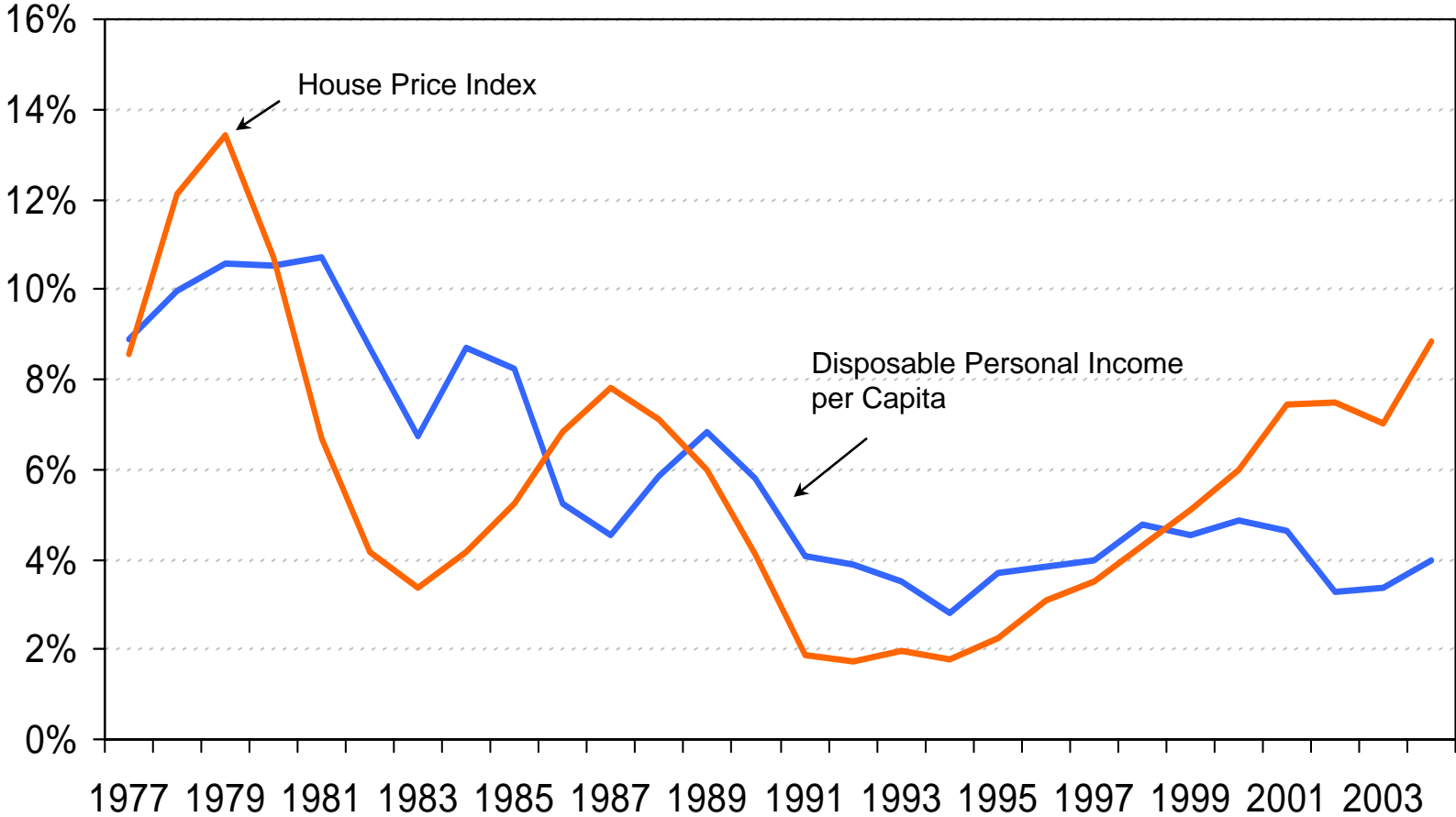
- National home price growth reached an all-time high versus both inflation and income growth in 2004, and 25 out of 100 of the top MSAs had home price appreciation of 20% or more last year – the highest percentage since 1979, when CPI inflation was 13%.

Nominal and Real Home Prices



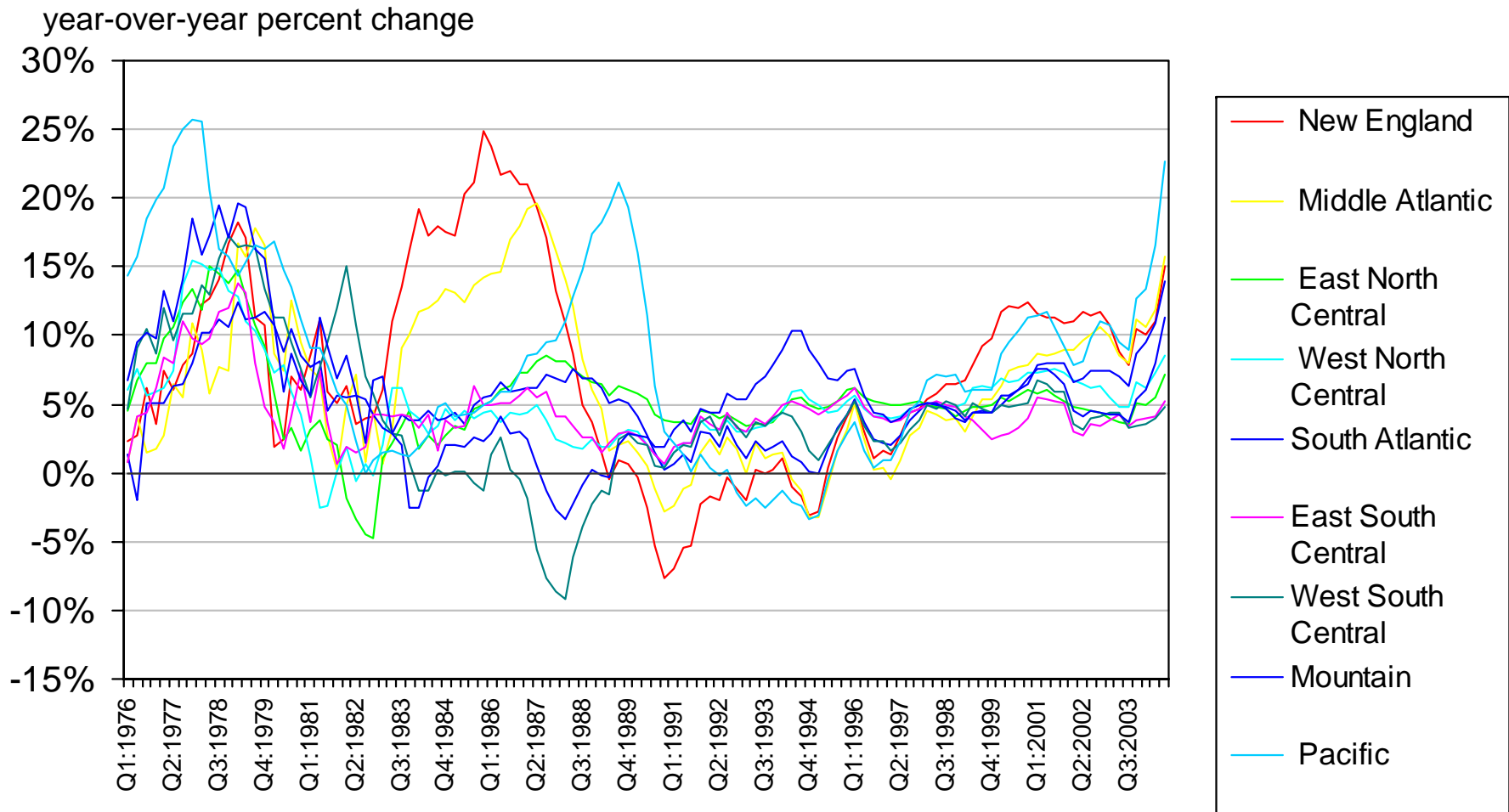
Home Prices versus Disposable Personal Income Per Capita

rolling two-year annualized growth rate



Source: Bureau of Economic Analysis, Office of Federal Housing Enterprise Oversight

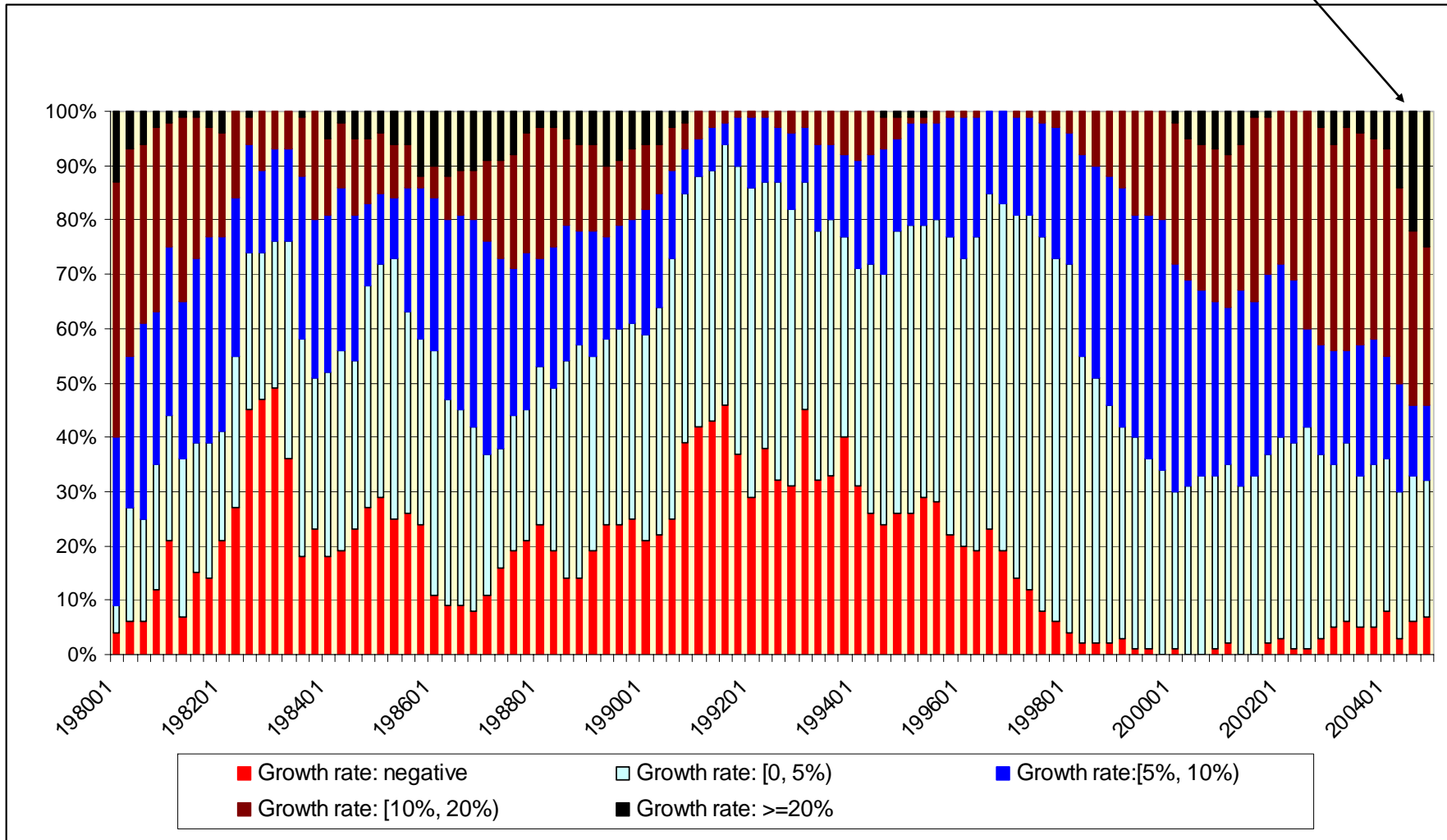
Home Price Appreciation in the Census Divisions



Source: OFHEO

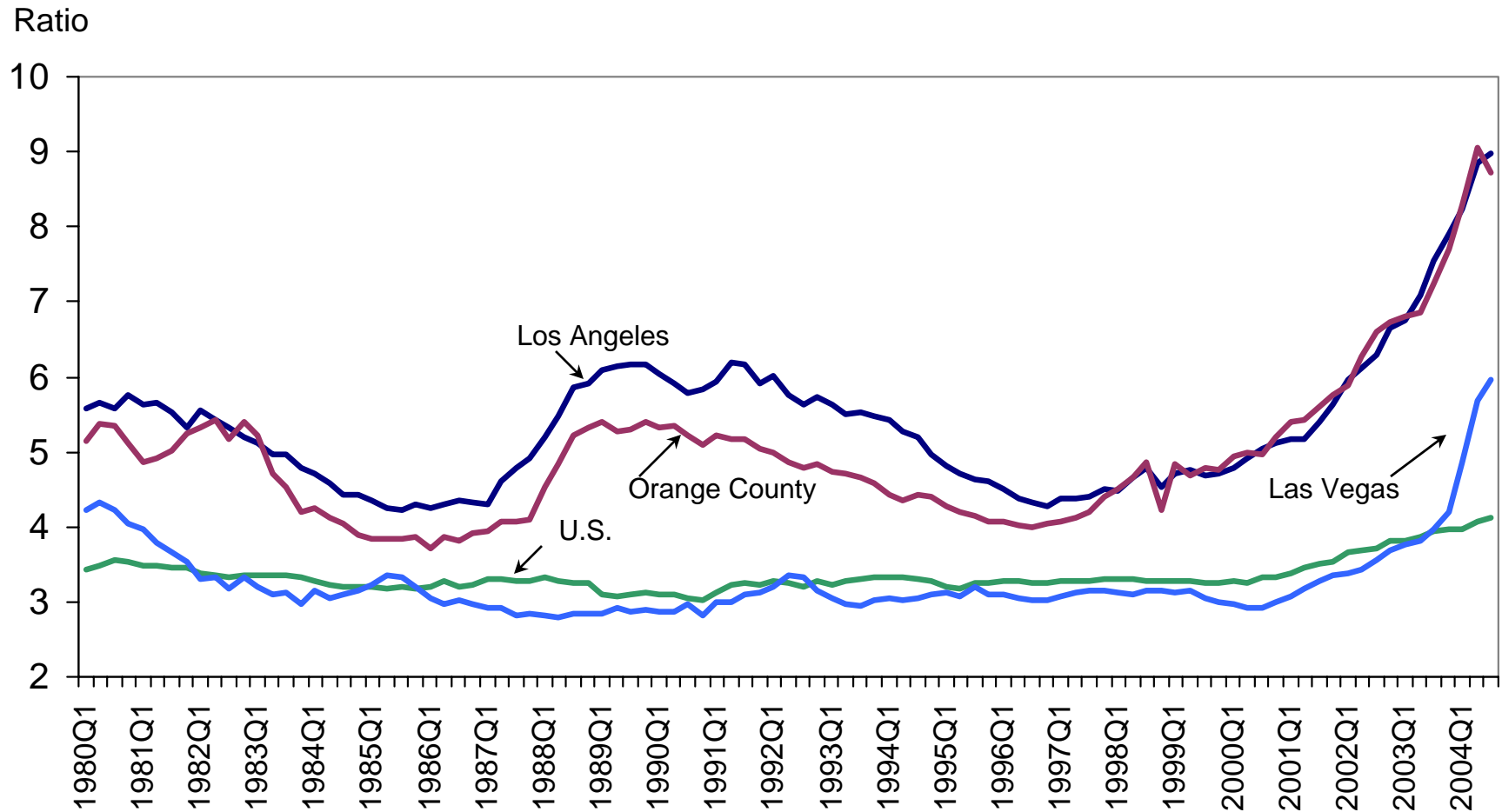
Distribution of 4Q Rollover Growth Rates: 1980Q1-2004Q4 for Top 100 MSAs*

25% of MSAs > 20%! 



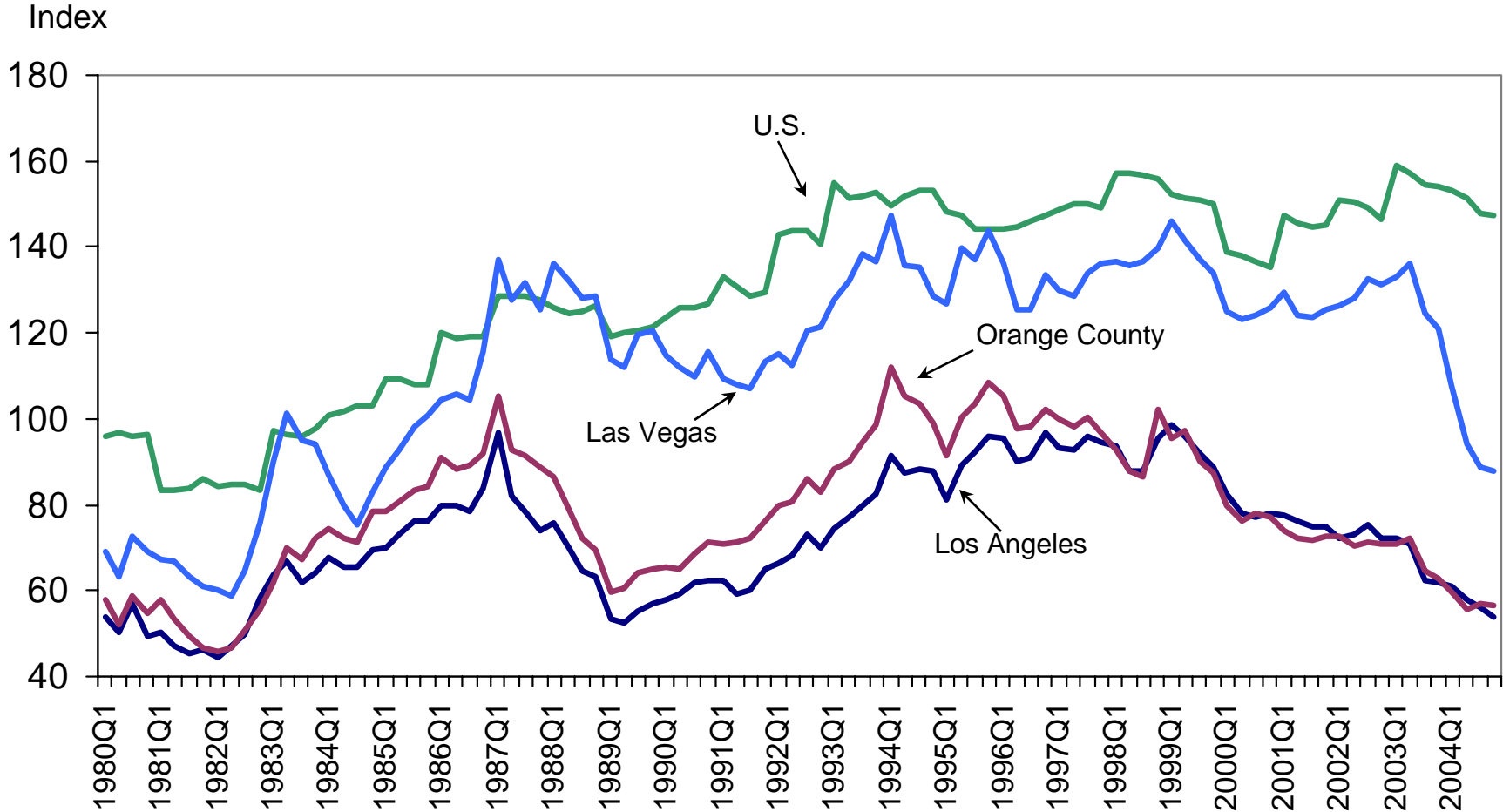
Source: Fannie Mae Purchase Home Price Index; December 2004 data

Median Home Price/Median Household Income, U.S. and Selected Cities



Source: National Association of Realtors, Economy.com estimates

Affordability Indices, U.S. and Selected Cities



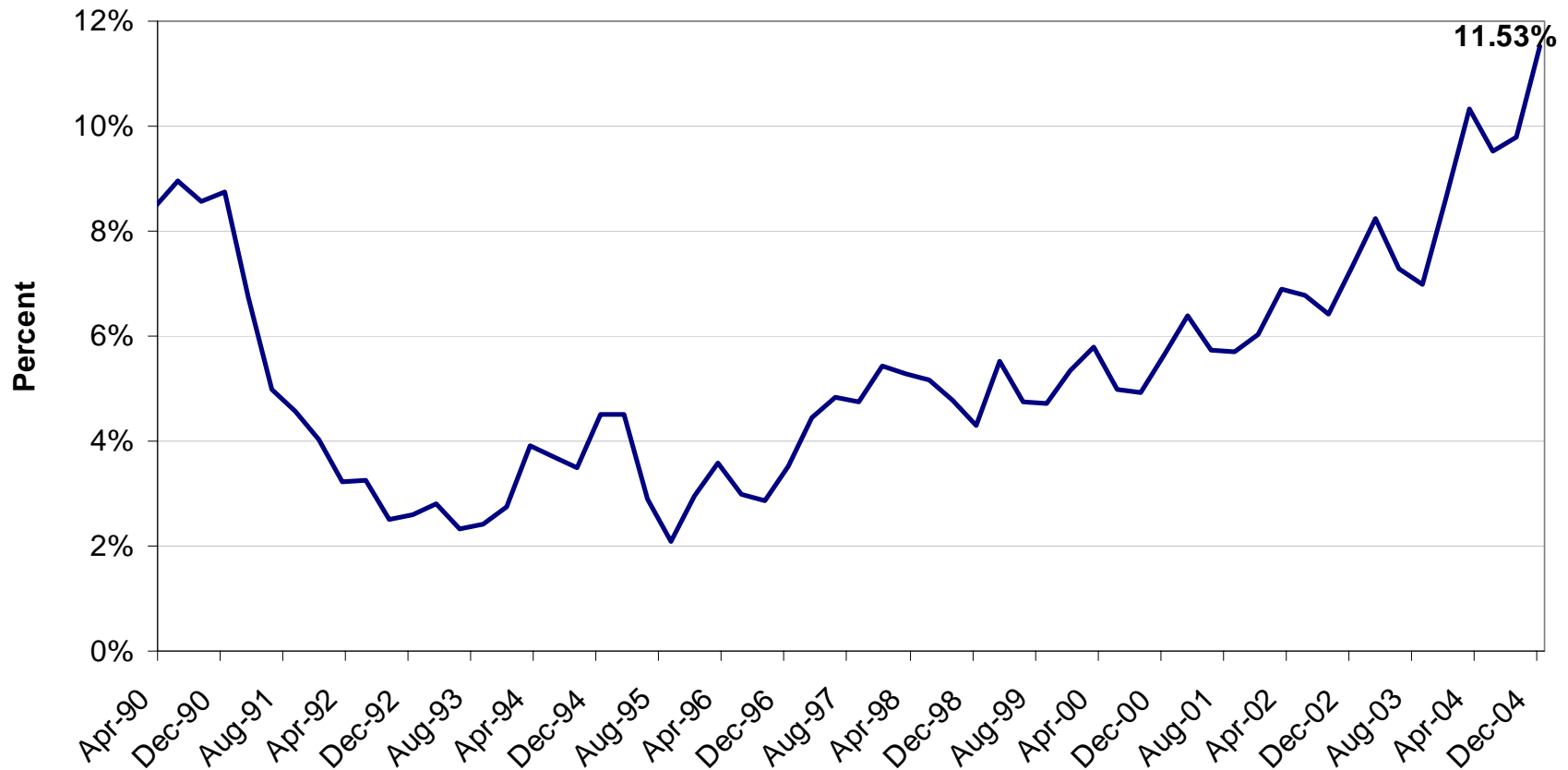
Index = 100 when median household income qualifies for an 80-percent mortgage on a median existing homes. Rising index indicates more buyers can enter the market.

Source: Economy.com estimates

Have the Potential Indicators of a Housing Bubble Intensified?

- The investor share of the purchase market has increased dramatically, to levels not seen since at least the late 1980's. The investor share increase has been concentrated in MSAs with exceptionally rapid home price growth.

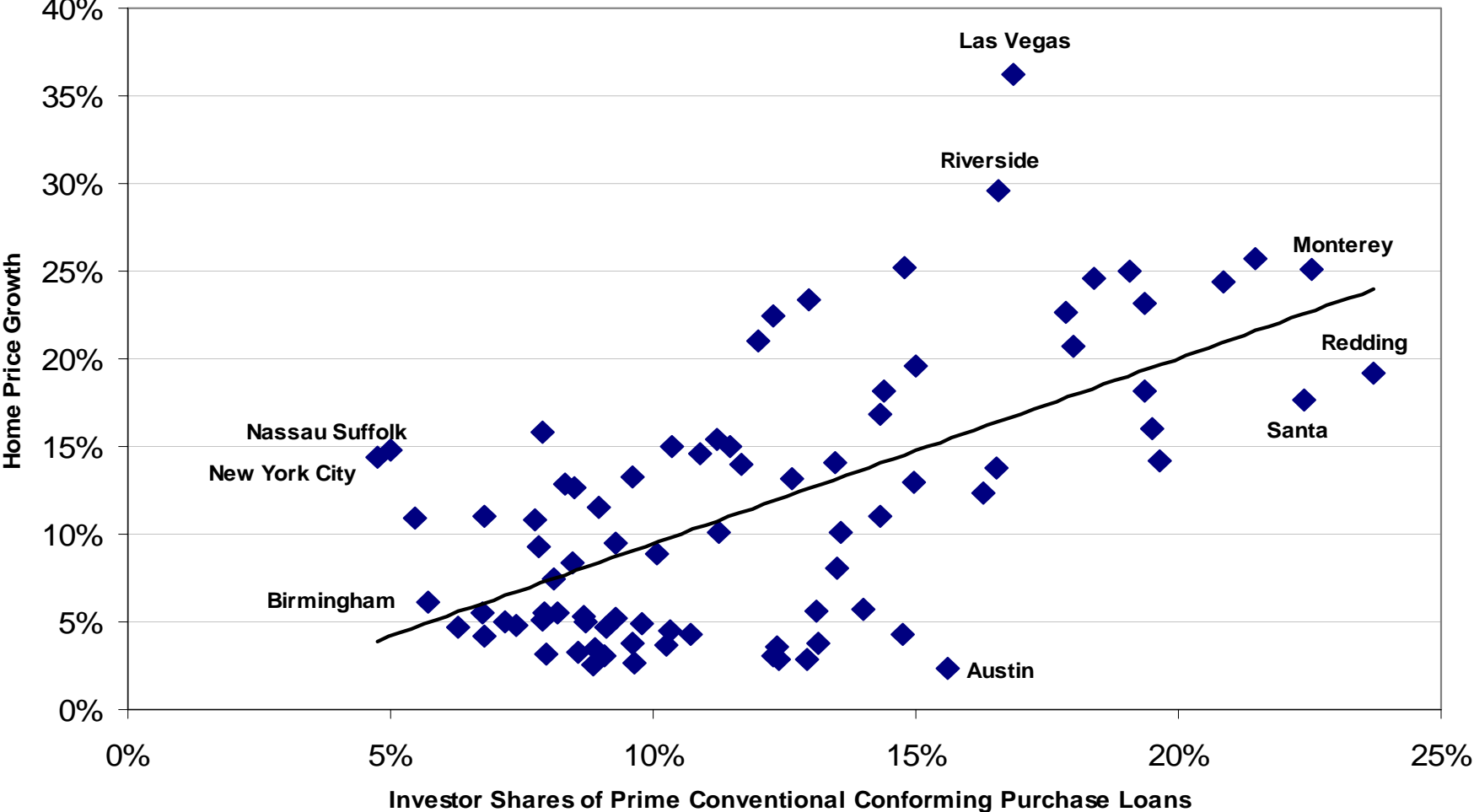
Investor Share for Prime Conventional Conforming Purchase Loans



Source: LoanPerformance

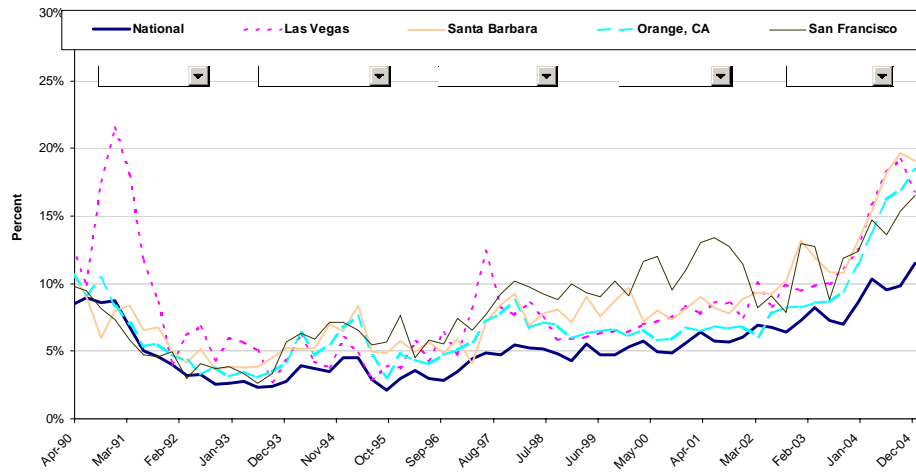
Home Price Growth and the Investor Share of Purchase Loans by MSA

(Yr/Yr Home Price Growth and Investor Share in Q4:2004, by Number of Loans)



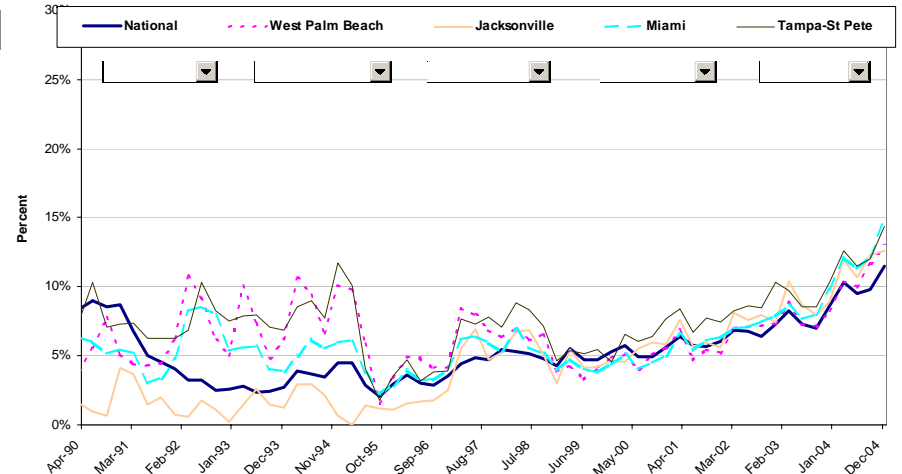
Source: OFHEO Home Price Index, LoanPerformance Prime Conventional Database as of Dec 2004

Investor Shares For Prime Conventional Conforming Purchase Loans In Selected MSAs (Five National/MSA Options)



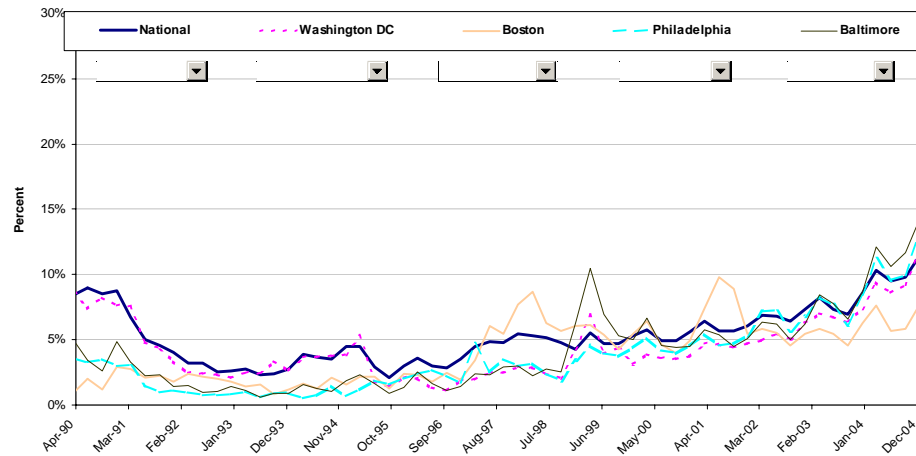
Source: LoanPerformance (Includes Fannie Mae), data are # of loans as of Dec 2004.

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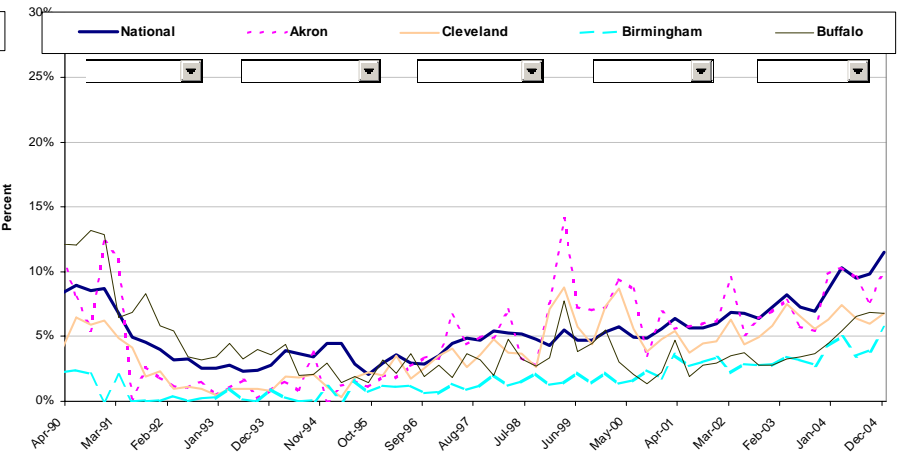
Source: LoanPerformance (Includes Fannie Mae), data are # of loans as of Dec 2004.

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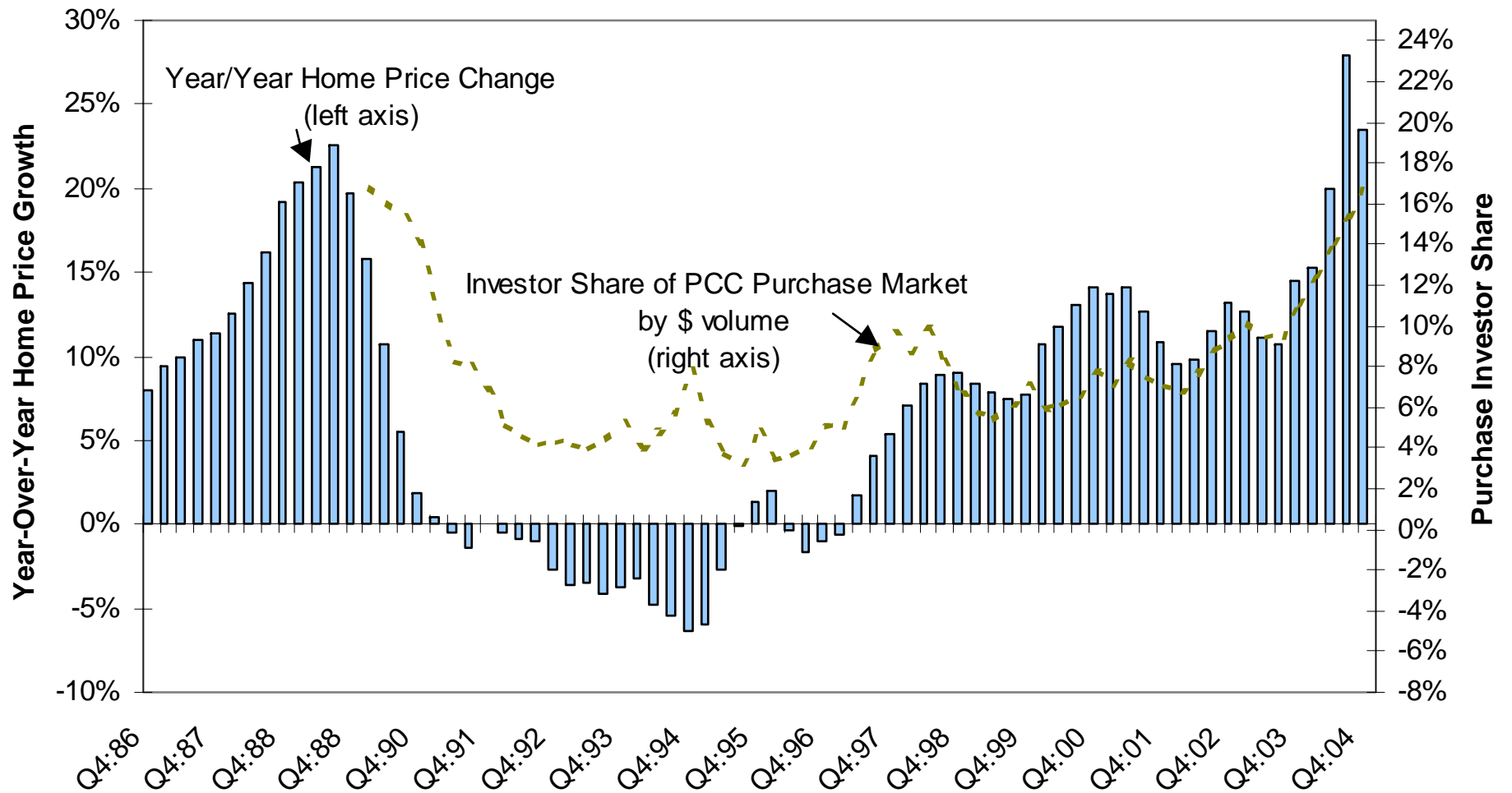
Source: LoanPerformance (Includes Fannie Mae), data are # of loans as of Dec 2004.

Investor Shares For Prime Conventional Conforming Purchase Loans In Selected MSAs (Five National/MSA Options)



Source: LoanPerformance (Includes Fannie Mae), data are # of loans as of Dec 2004.

Investor Share of Purchase Loan Market vs. Home Price Growth: California

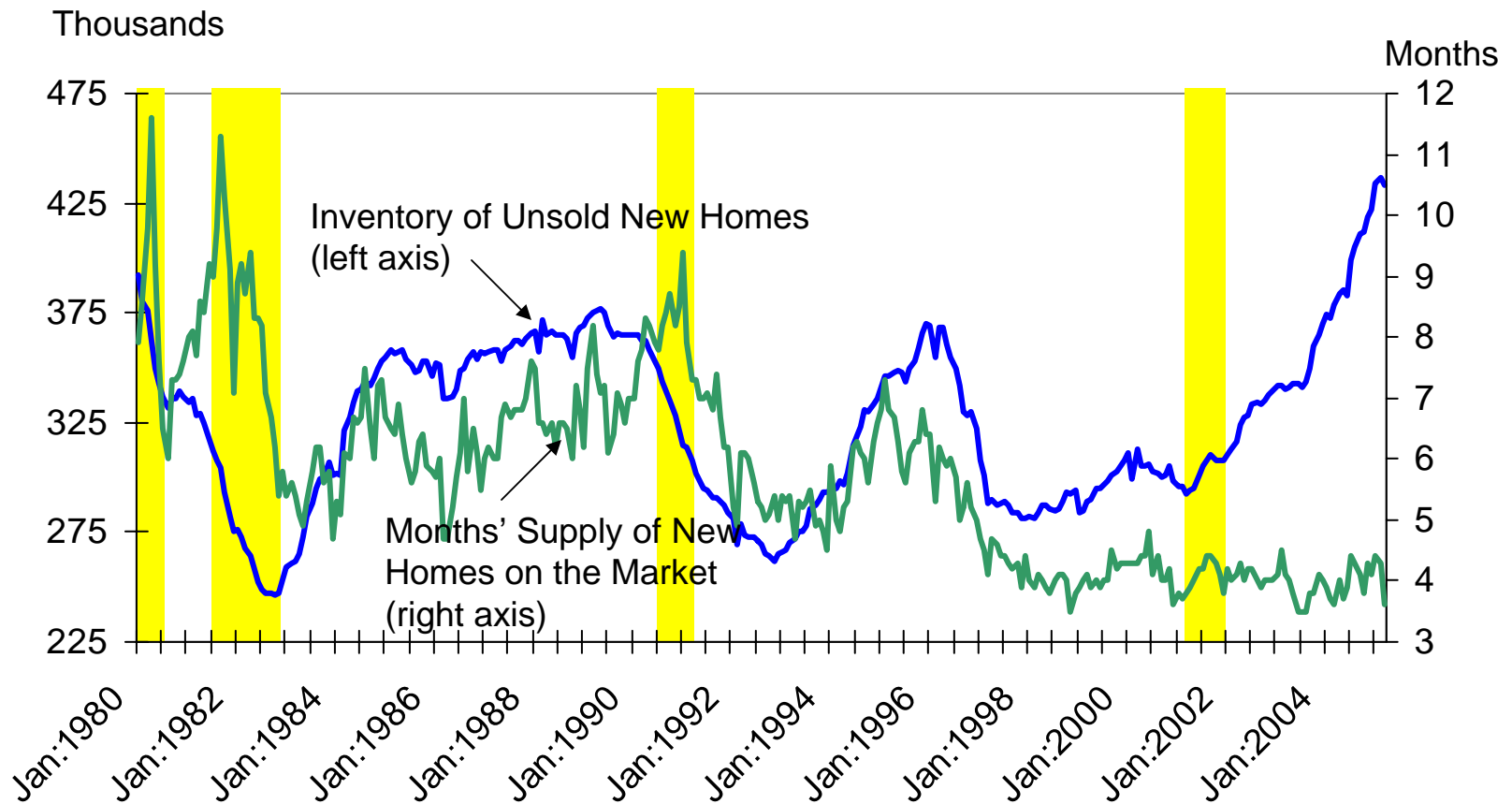


Source: LoanPerformance, OFHEO

Have the Potential Indicators of a Housing Bubble Intensified?

- New and existing home sales jumped well above what household growth would have suggested last year— recent surveys suggest that some households accelerated purchase decisions based either on projected home price gains or on concerns about rising interest rates.
- Census data suggest that there has been a sharp increase in the single-family rental vacancy rate.

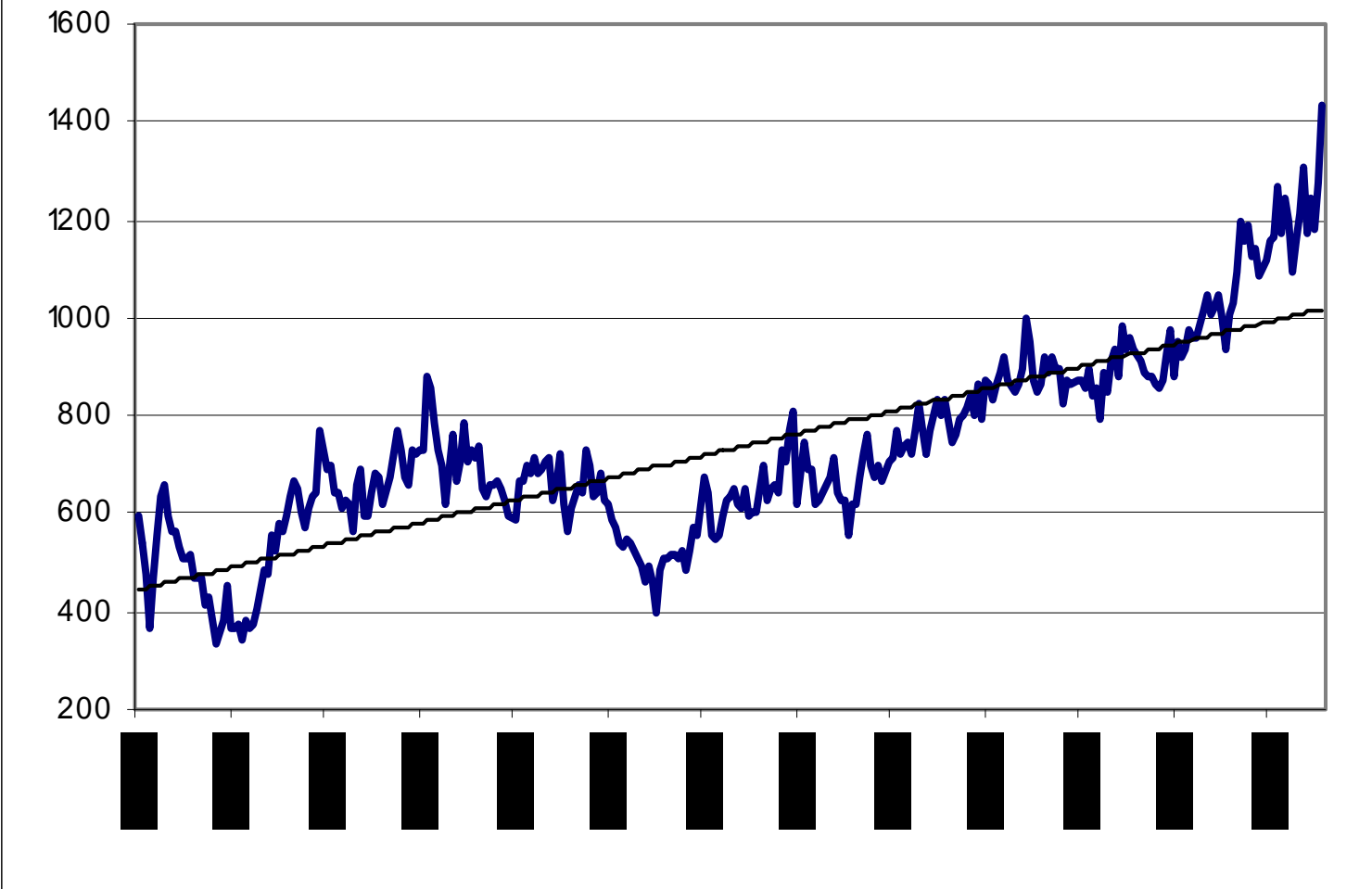
New Homes For Sale



Source: Census Bureau

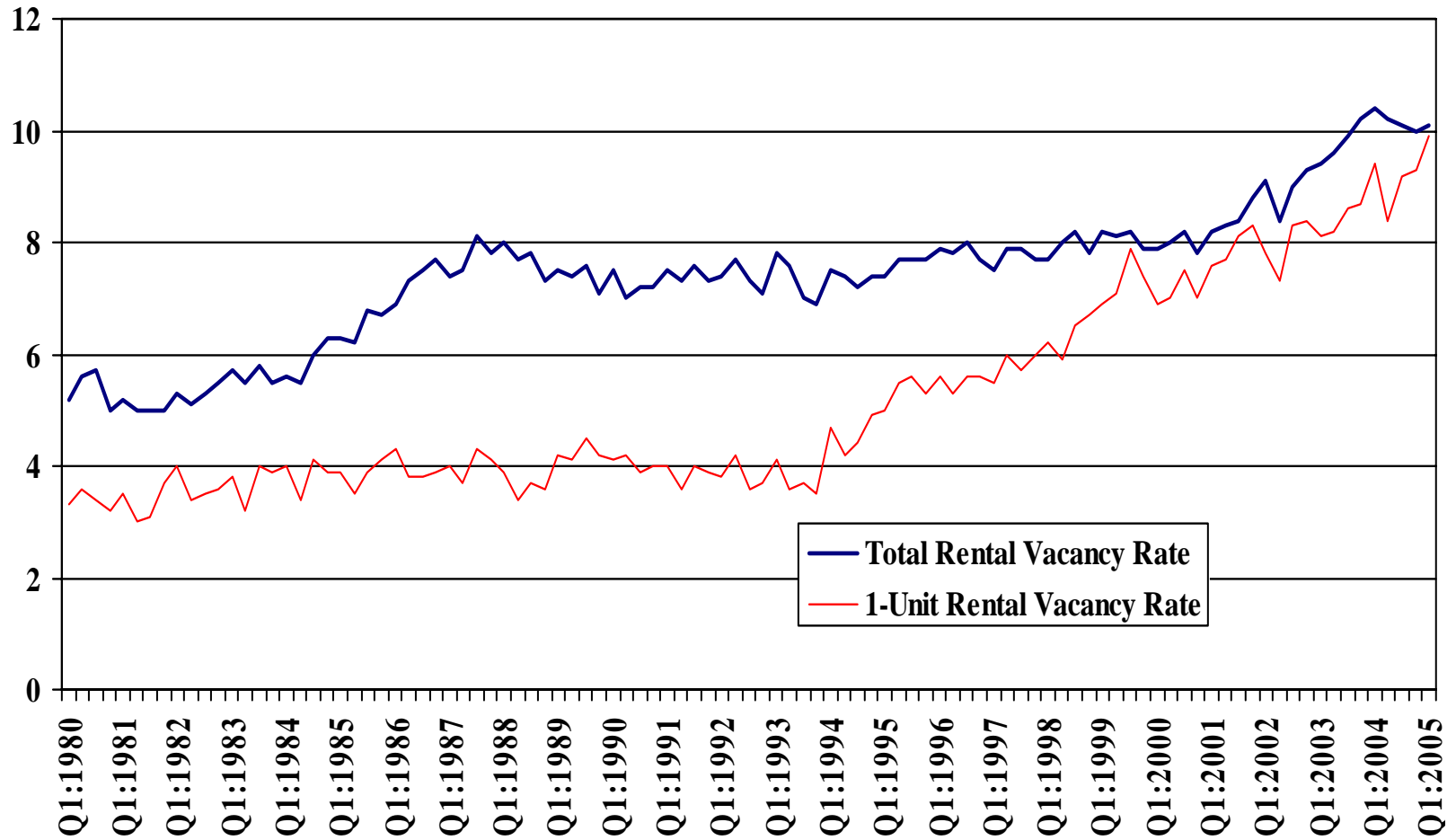
New Home Sales

Thousands



Source: Census Bureau

Rental Vacancy Rate

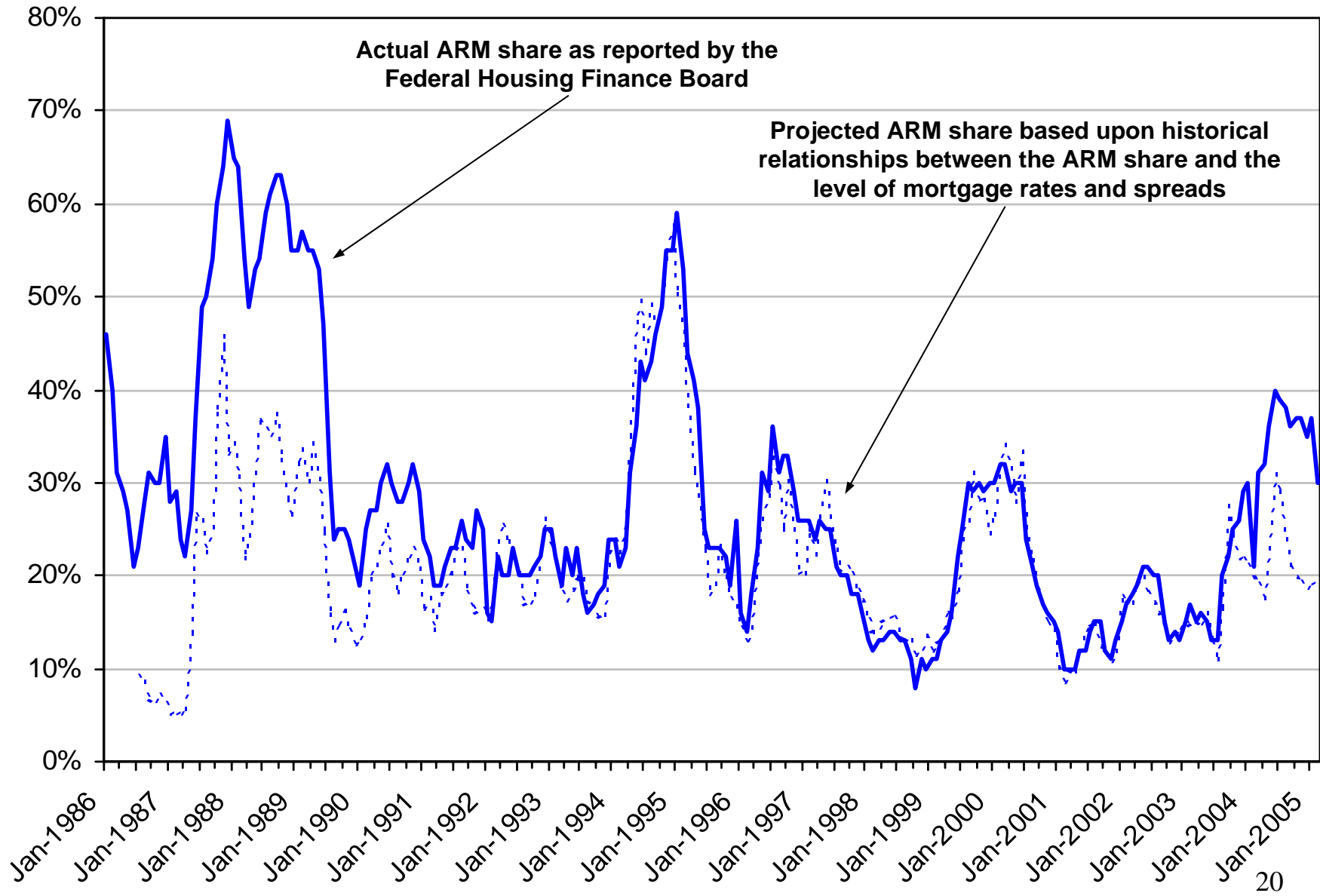


Source: Census Bureau

Have the Potential Indicators of a Housing Bubble Intensified?

- The ARM share of the market has been much higher than interest rates and spreads would have suggested, and ARM products designed to minimize initial payments (e.g., I-O, neg-am) have gone from “niche” to mainstream.
- The low/no doc share of the purchase market has risen considerably.
- Use of subordinate financing – even for jumbo loans – has increased sharply, producing a rise in CLTVs.

Actual and Projected ARM Share of the Number of Conventional Loans Closed for Purchase



Sources: Federal Housing Finance Board, Fannie Mae

Characteristics of Purchase Originations by Market Segment

	2003					
	ARM	Low & No Doc	Investor	2nd Home	IO ARMs	Simultaneous 2nds
	(Share of \$ Volume)	(Share of \$ Volume)	(Share of \$ Volume)	(Share of \$ Volume)	(Share of \$ Volume)	(Share of \$ Volume)
Government	6.2%	-	-	-	-	-
PCC	18.2%	16.7%	6.5%	5.1%	-	-
Prime Jumbo	63.8%	30.5%	1.8%	7.4%	36.1%	10.3%
Subprime	80.6%	42.8%	7.2%	1.3%	9.1%	18.4%
Alt-A	44.0%	65.0%	18.1%	3.9%	25.1%	20.6%

	2004					
	ARM	Low & No Doc	Investor	2nd Home	IO ARMs	Simultaneous 2nds
	(Share of \$ Volume)	(Share of \$ Volume)	(Share of \$ Volume)	(Share of \$ Volume)	(Share of \$ Volume)	(Share of \$ Volume)
Government	21.2%	-	-	-	-	-
PCC	36.1%	22.3%	8.1%	6.5%	-	-
Prime Jumbo	81.5%	42.4%	3.1%	9.0%	52.5%	21.0%
Subprime	87.7%	44.8%	7.7%	1.5%	23.5%	30.2%
Alt-A	72.1%	63.4%	18.2%	4.7%	50.9%	39.7%

Sources:

Government - GNMA

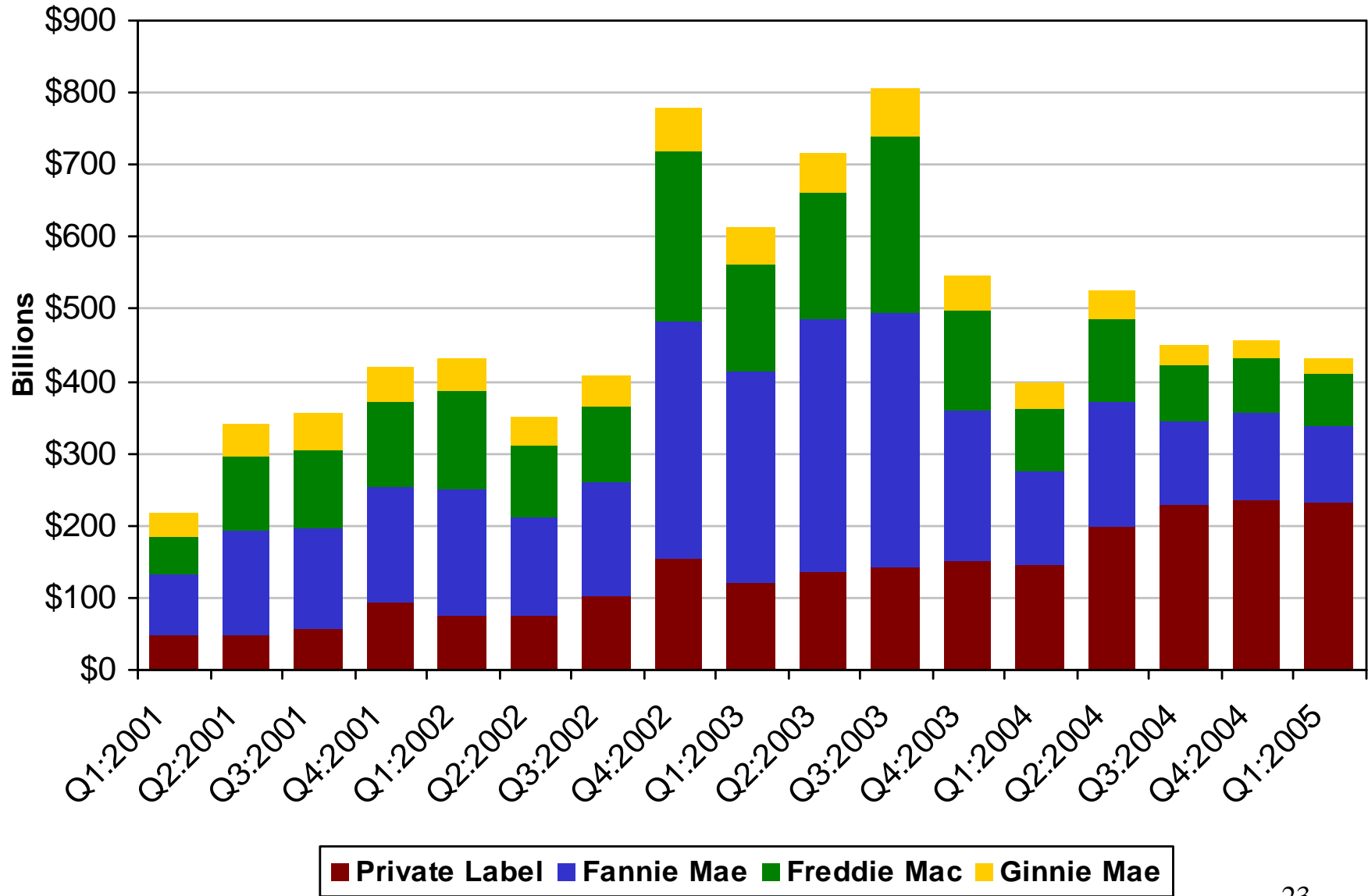
PCC - Federal Housing Finance Board, LoanPerformance

Prime Jumbo, Subprime, & Alt-A - LoanPerformance

Have the Potential Indicators of a Housing Bubble Intensified?

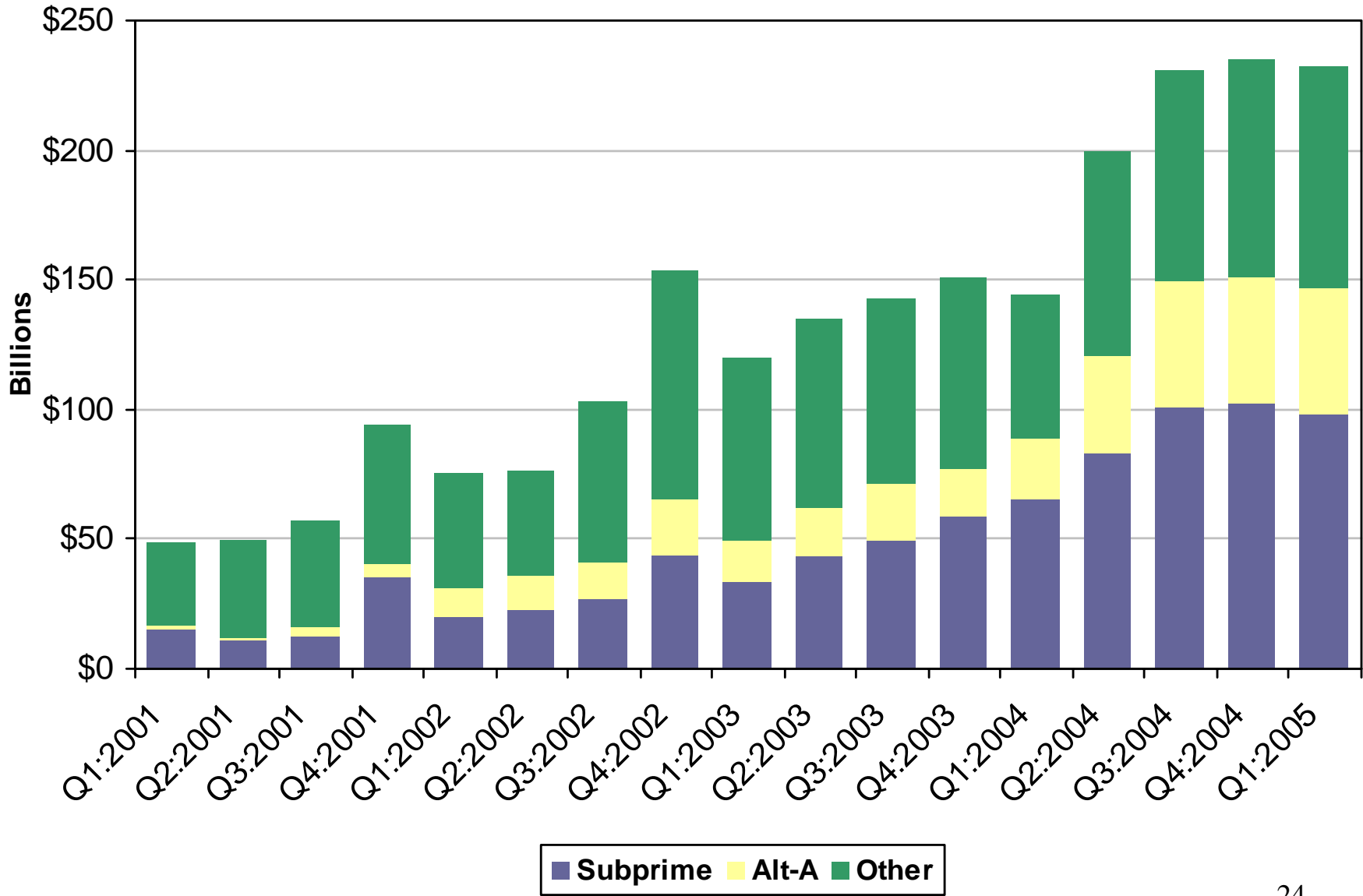
- Private-label securities issuance has soared, with increasingly “risky” loans backing the securities.
- The subprime share of the purchase market has jumped, mainly at the expense of the government share.
- The subprime market is mainly two-year, high-margin adjustable-rate loans.

Distribution of MBS Issuance by Issuer



Source: Lehman Brothers and *Inside MBS & ABS*

Distribution of Private Label MBS Issuance by Type



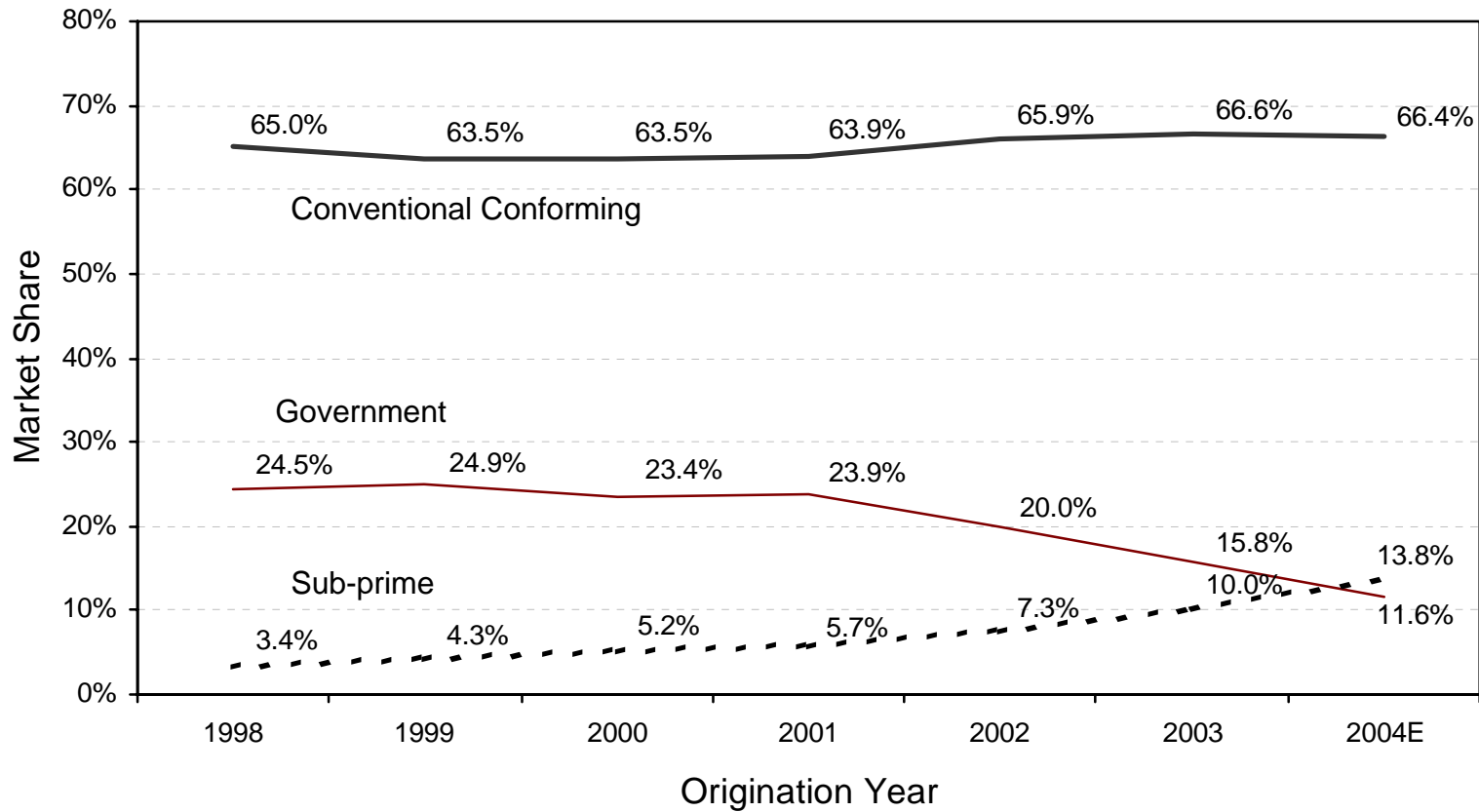
Source: Inside MBS & ABS

Characteristics of Purchase Loans Backing Private Label MBS

	ARM Share	Interest Only ARM Share	Non-Owner Occupied Share	Full Doc Share	Share w/ Simultaneous Seconds	Average CLTV	Average FICO
Subprime MBS							
2001	73.6%	0.0%	7.9%	70.4%	7.1%	85.1%	605
2002	79.5%	1.8%	8.1%	60.9%	6.1%	85.5%	631
2003	79.2%	8.2%	8.6%	57.6%	19.5%	89.7%	651
2004	87.7%	23.5%	9.2%	55.1%	30.2%	91.2%	652
Alt-A MBS							
2001	18.0%	3.0%	12.6%	34.4%	1.7%	84.2%	699
2002	26.7%	6.5%	16.8%	36.2%	2.6%	83.9%	708
2003	39.3%	22.5%	21.5%	34.2%	20.0%	85.4%	717
2004	72.1%	50.9%	22.9%	33.8%	39.7%	86.4%	717
Jumbo MBS							
2001	25.3%	5.4%	5.3%	72.7%	0.7%	75.9%	724
2002	44.0%	19.7%	6.7%	67.8%	1.7%	75.0%	733
2003	61.7%	34.8%	9.1%	52.4%	13.3%	76.8%	738
2004	81.5%	52.5%	12.1%	49.2%	21.0%	78.4%	738

Source: 2001 to 2003 - UBS Warburg; 2004 - LoanPerformance

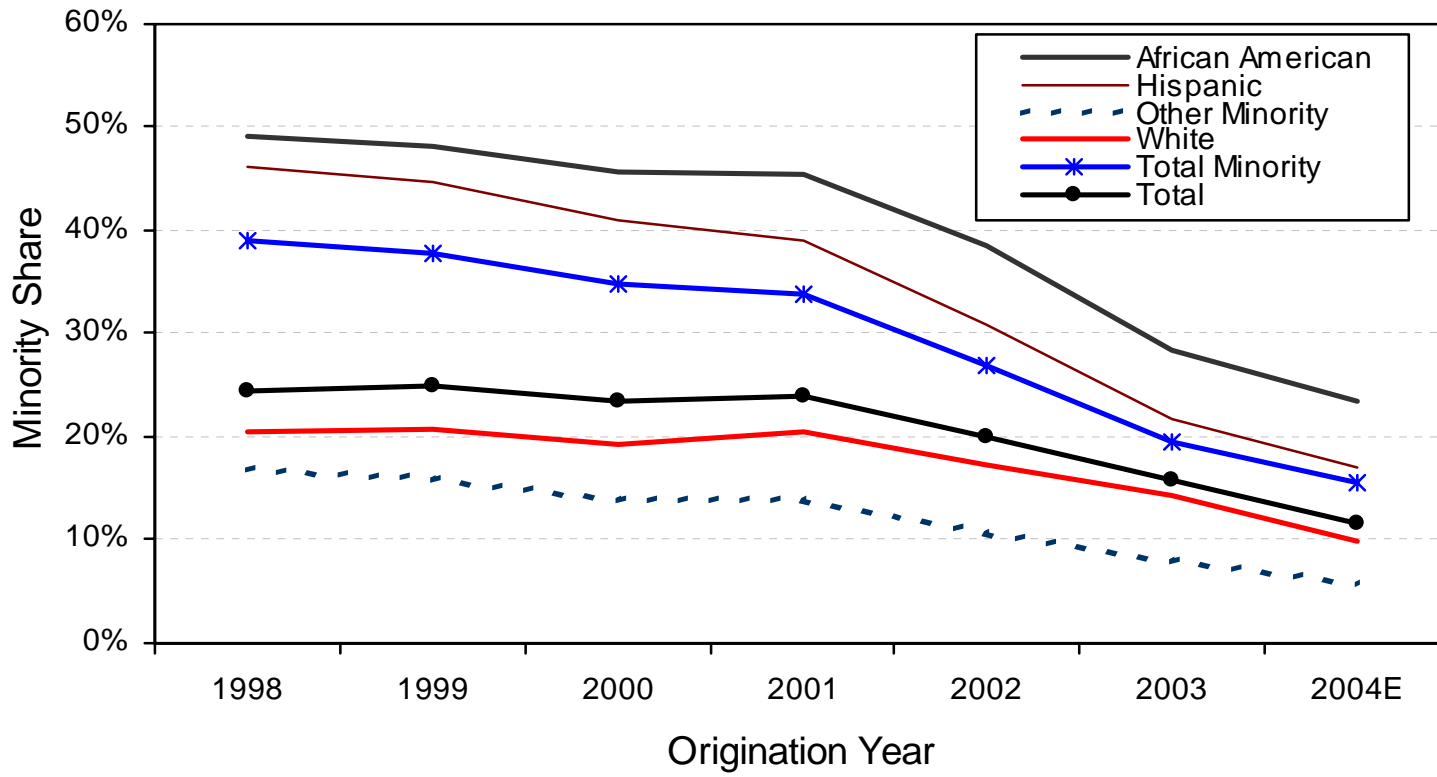
Market Segment Share of Total Purchase Market



Source: HMDA purchase money, owner occupied originations in MSAs

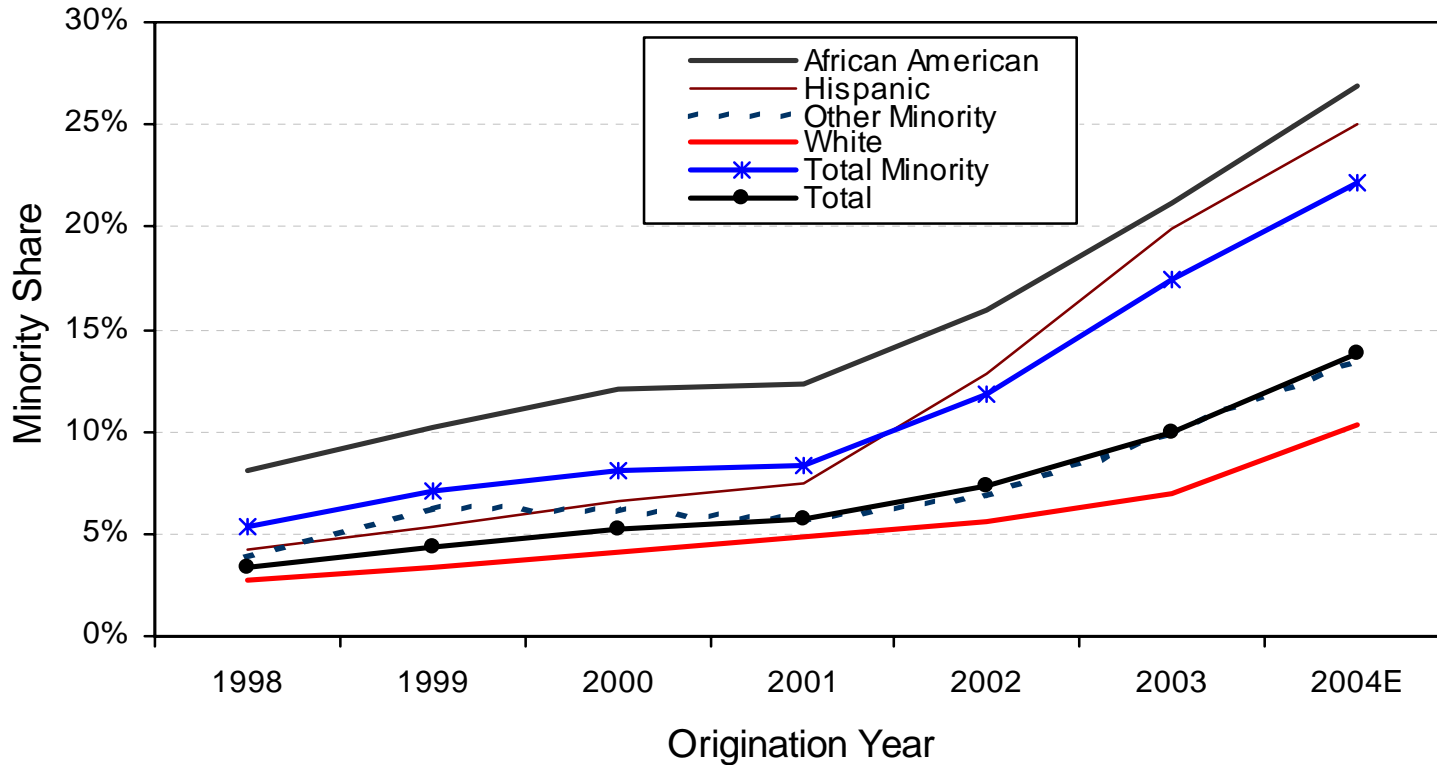
Government Share of Purchase Originations

By Borrower Race/Ethnicity



Source: HMDA purchase money, owner occupied originations in MSAs; includes co-borrower race

Subprime Share of Purchase Originations By Borrower Race/Ethnicity



Source: HMDA purchase money, owner occupied originations in MSAs; includes co-borrower race

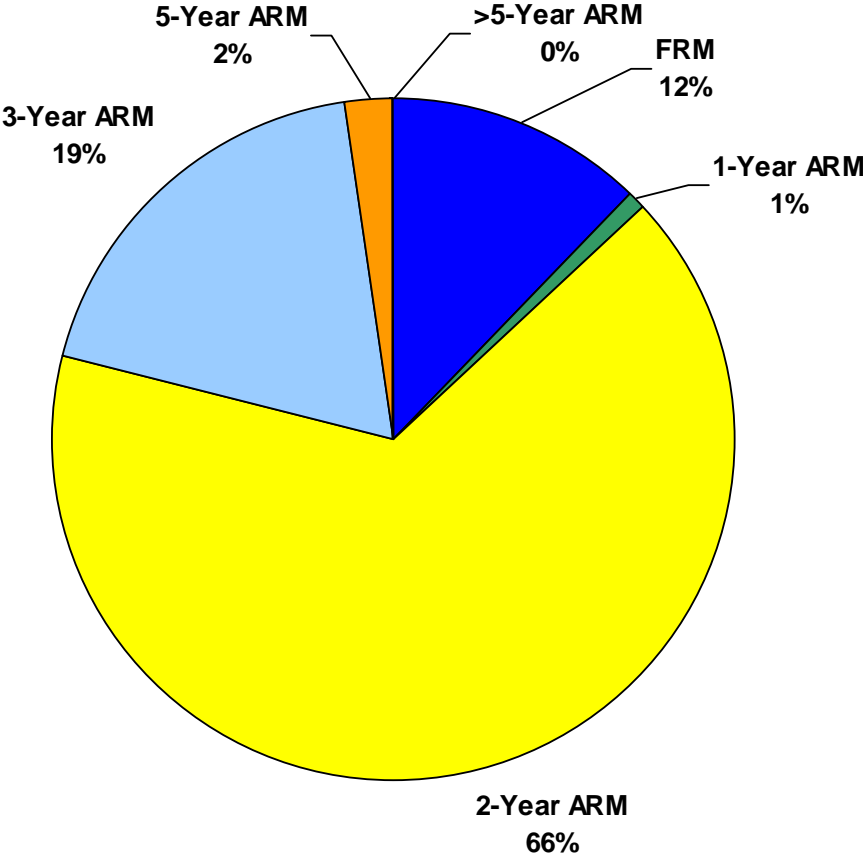
Characteristics of Loans Backing Private Label Subprime MBS

	Product Share	Average Note Rate	Average FICO	Average CLTV	Purchase Share	Share w/ Prepayment Penalty	Interest Only Share	Average DTI Ratio	Full Doc Share
2004									
FRM	26%	7.18%	648	79%	22%	77%	1%	39%	68%
ARM	74%	7.14%	619	85%	39%	75%	14%	40%	60%
2-Year	57%		Average ARM Margin Over Libor:			604 bps			
3-Year	15%		Average First Reset Cap:			232 bps			
5-Year	1%		Average Lifetime Cap:			639 bps			
2003									
FRM	35%	7.52%	646	80%	20%	73%	0%	39%	66%
ARM	65%	7.71%	610	83%	34%	79%	3%	40%	65%
2-Year	53%		Average ARM Margin Over Libor:			623 bps			
3-Year	10%		Average First Reset Cap:			231 bps			
5-Year	1%		Average Lifetime Cap:			633 bps			

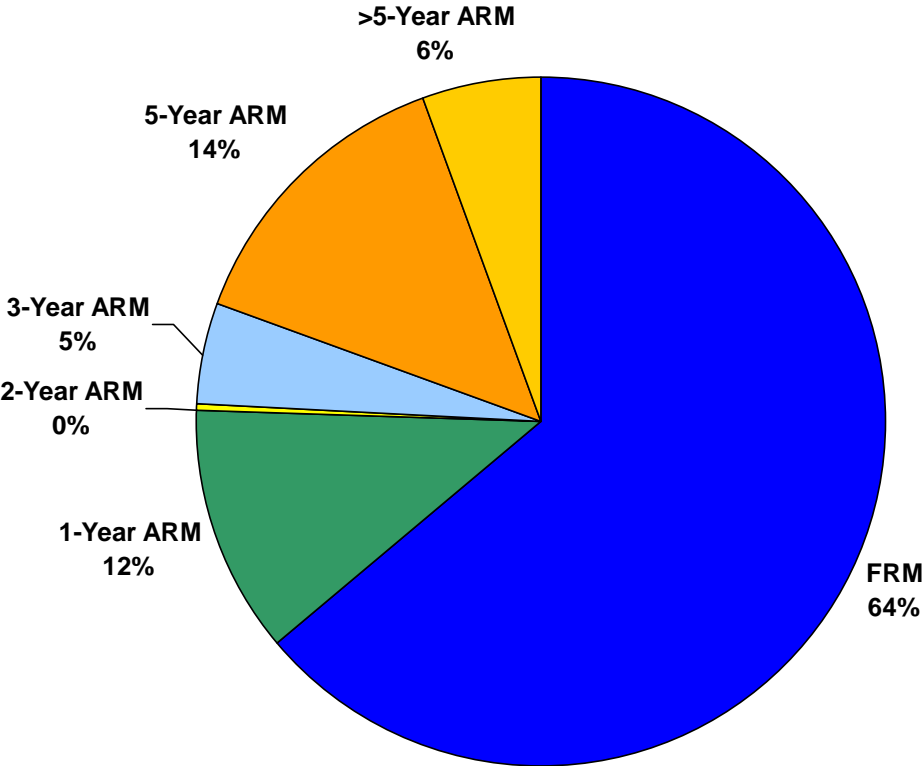
Source: Lehman Brothers

Distribution of Subprime MBS Purchase Loans and PCC Purchase Loans by Loan Type in 2004

Subprime Purchase Loans

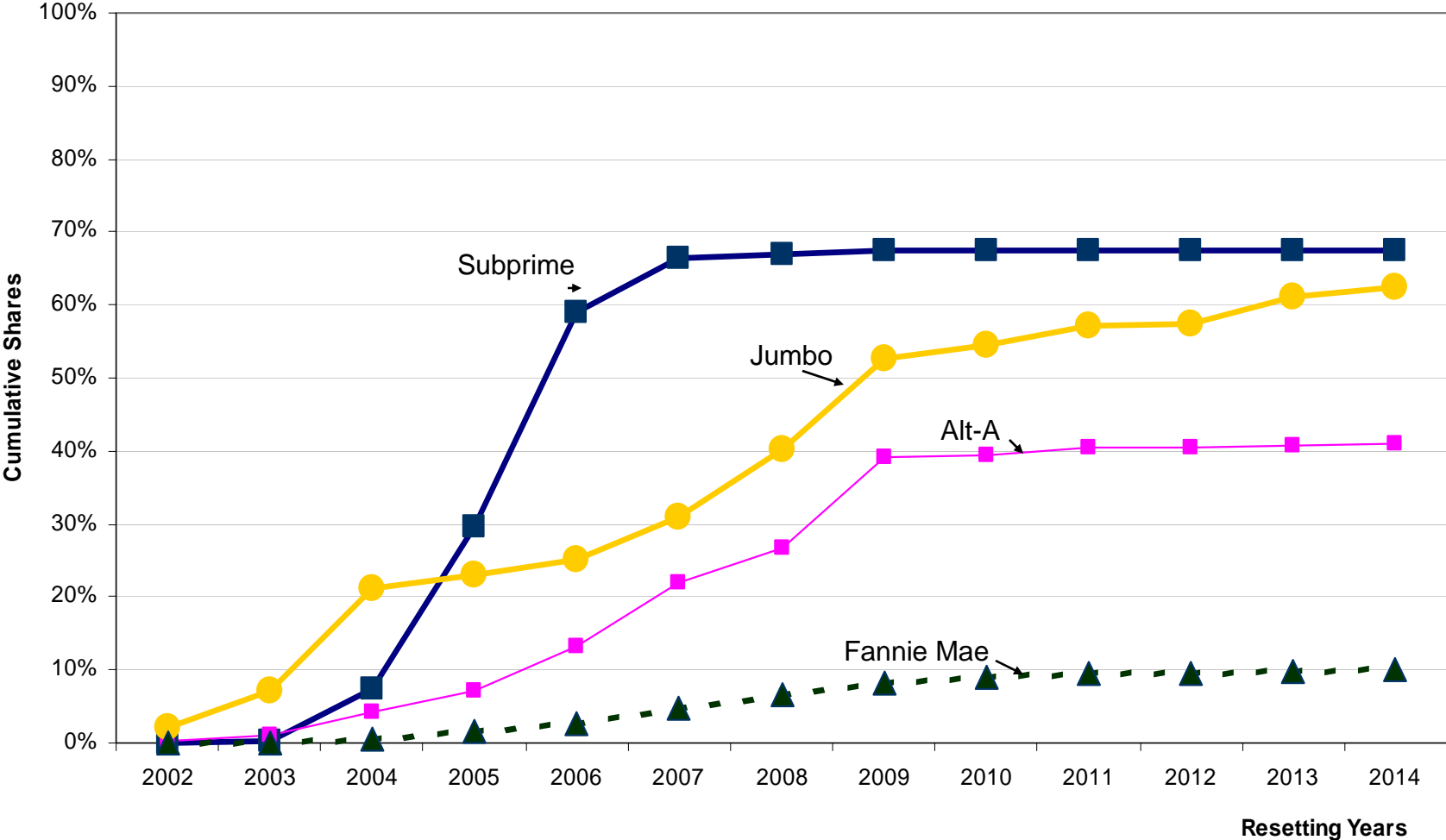


PCC Purchase Loans



Sources: Lehman Brothers, Federal Housing Finance Board

Shares of Loans with Rate Reset in the Next 10 Years



There Is No Clear Consensus View

No Bubble

- Demographics strong/potential minority demand high
- Inventory/sales ratios relatively low
- Supply a constraint
- Unemployment falling
- Economic expansion continuing
- Interest rates low
- Second home/investor demand from aging baby boomers
- Credit market pricing suggests benign housing credit outlook

Bubble Concerns

- Net housing production exceeding household growth
- Vacancy rates/inventories rising
- Speculative buying increasing
- Interest rates rising
- Underwriting loosening
- Affordability concerns breeding “creative” (risky) financing
- ARM share high despite lower fixed-rate yields/flatter curve
- MI industry/equity investors expressing concerns about market trends

A Number of the Lending Patterns Observed Over the Last Year Were Also Seen in the late 1980's – The “”Boom” of the Last “Boom/Bust”

- Increased investor buying/speculative behavior
- Unrealistically high consumer expectations for home price appreciation
- Creative, riskier financing to surmount affordability concerns
- Much higher ARM share than models were projecting
- Dramatic rise in low/no doc lending

Washington Post Articles from the Past:

- “With mortgage rates and home prices rising, attractive and affordable mortgages are becoming hard to come by... Accordingly, lenders and mortgage brokers are wheeling out “creative financing” alternatives that could make it easier to qualify for loans and get lower initial payments.” **(4/1/89)**
 - Products mentioned: graduated payment, neg am, interest-only, 40-year loans.
- “Limited (low documentation and no-documentation) mortgage applications have been one of the most popular consumer innovations of the past three years....some experts estimate that 30 percent to 40 percent of all conventional home loans made in **1988** and **1989** used some version of the limited documentation concept. “ **(10/20/90)**
 - (Article highlighted by Fannie Mae tightening its requirements on no doc and low doc loans).
- “A novel mortgage plan introduced this month...illustrates the extremes that aggressive lenders are exploring. It’s called the ‘LEAP’... “ **(4/9/88)**
 - Features: teaser rate; interest-only: underlying 6-month ARM; 5-year balloon; “easy documentation” with 20 percent down at settlement

Summary Conclusions

- No one can say that a “bubble” exists until after the fact
- However, conditions in many parts of the country (though certainly not most of the country) mirror past conditions that preceded regional housing “busts”
- The probability of such an event occurring has risen sharply in certain parts of the country
- The housing market’s sensitivity both to interest rates and employment growth has increased