

After the Housing Meltdown: What it Means for Wood Products

Western Pallet Association

January 21, 2008



Forward-Looking Statement

January 2008



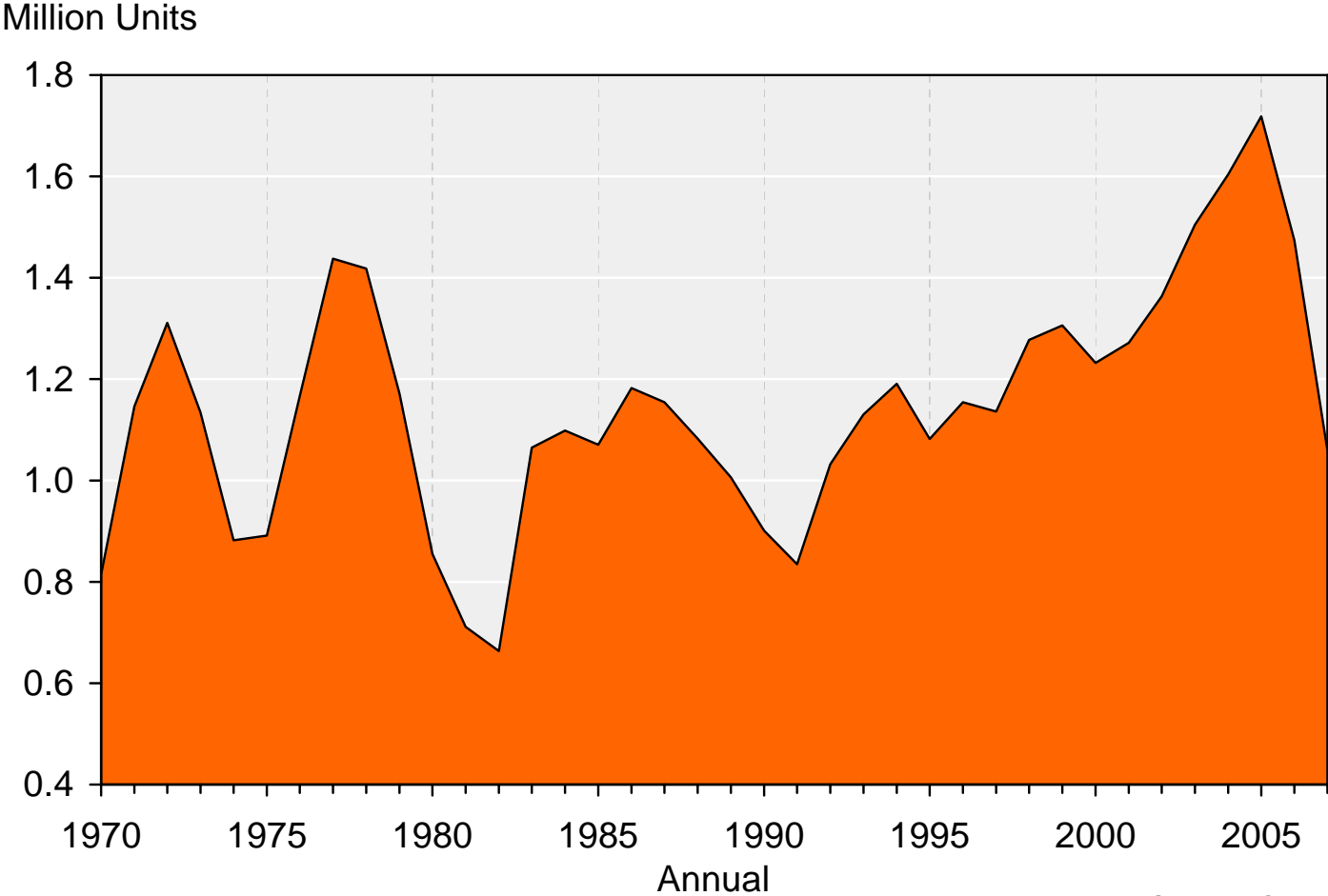
Information in this presentation is derived principally from publicly available information, forest products and building industry publications and websites, data compiled by market research firms, and similar sources. Although we believe that this information is reliable, we have not independently verified any of this information and we cannot assure you that it is accurate. This presentation also contains forecasts regarding future economic conditions, demand, commodity prices and similar matters. The accuracy of such forecasts is subject to a number of risks, uncertainties and assumptions that may cause actual results to differ materially from those projected, including, but not limited to, the effect of general economic conditions, including the level of interest rates, housing starts and exchange rates; the relative strength of various U.S. and global business segments; energy prices; raw material prices; transportation disruptions; the effect of governmental actions; natural disasters; and the outbreak of terrorism, war and other hostilities.

Start with Housing History 101

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U.S. Single-family Housing Starts



AMDHO55A

Source: Census

Understanding Current Housing Cycle

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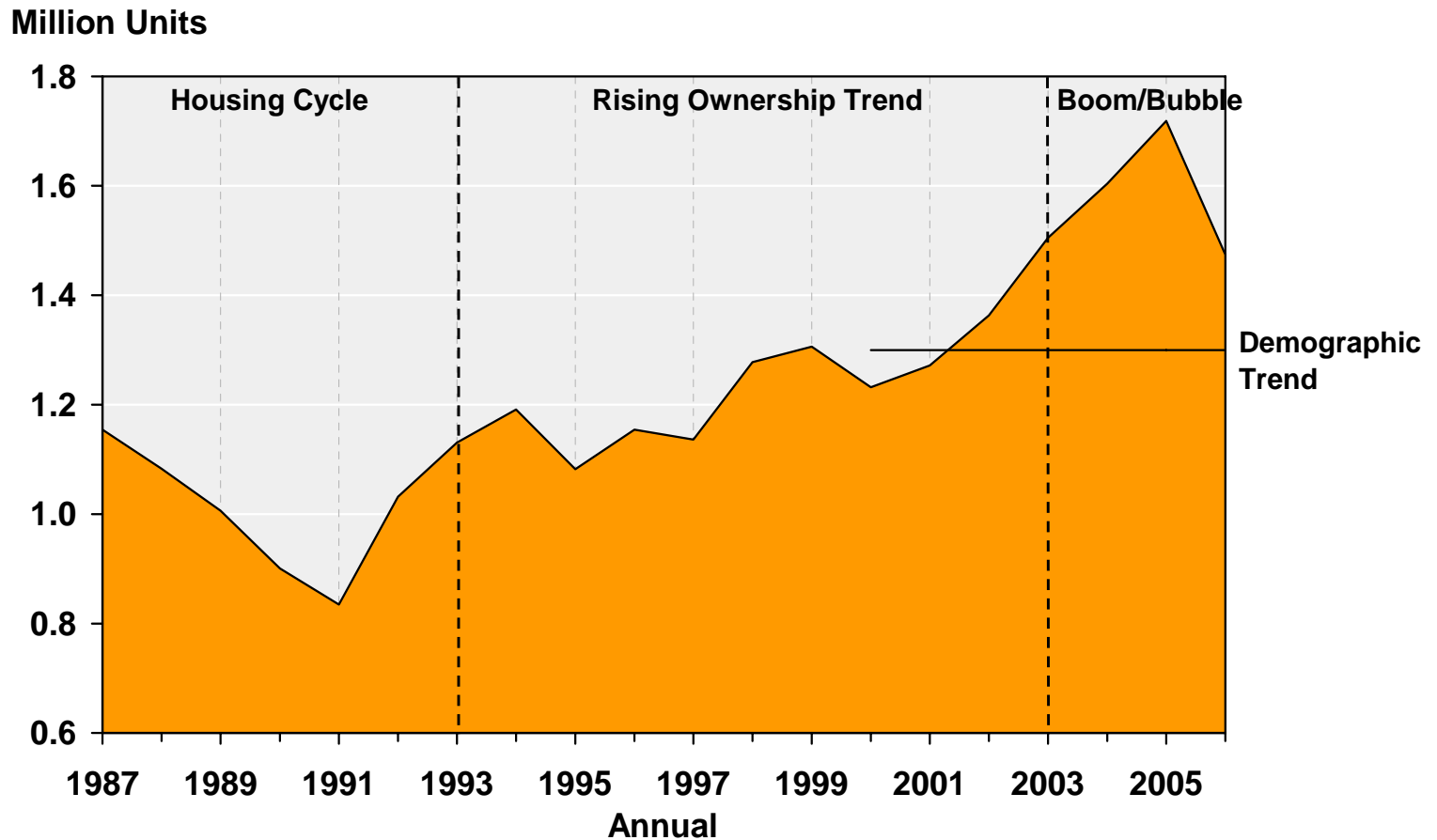
- Single-Family boom has roots in 1995-2003 trend
- Housing boom of 2003-06 fueled by extremely easy monetary policy
 - Housing inflation attracted investor demand
 - Low rates and rising home prices allowed mortgage lenders to make very risky loans — subprime and Alt-A loans

Several stages to the sustained growth period

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U.S. Single-family Housing Starts



AMDHO55H

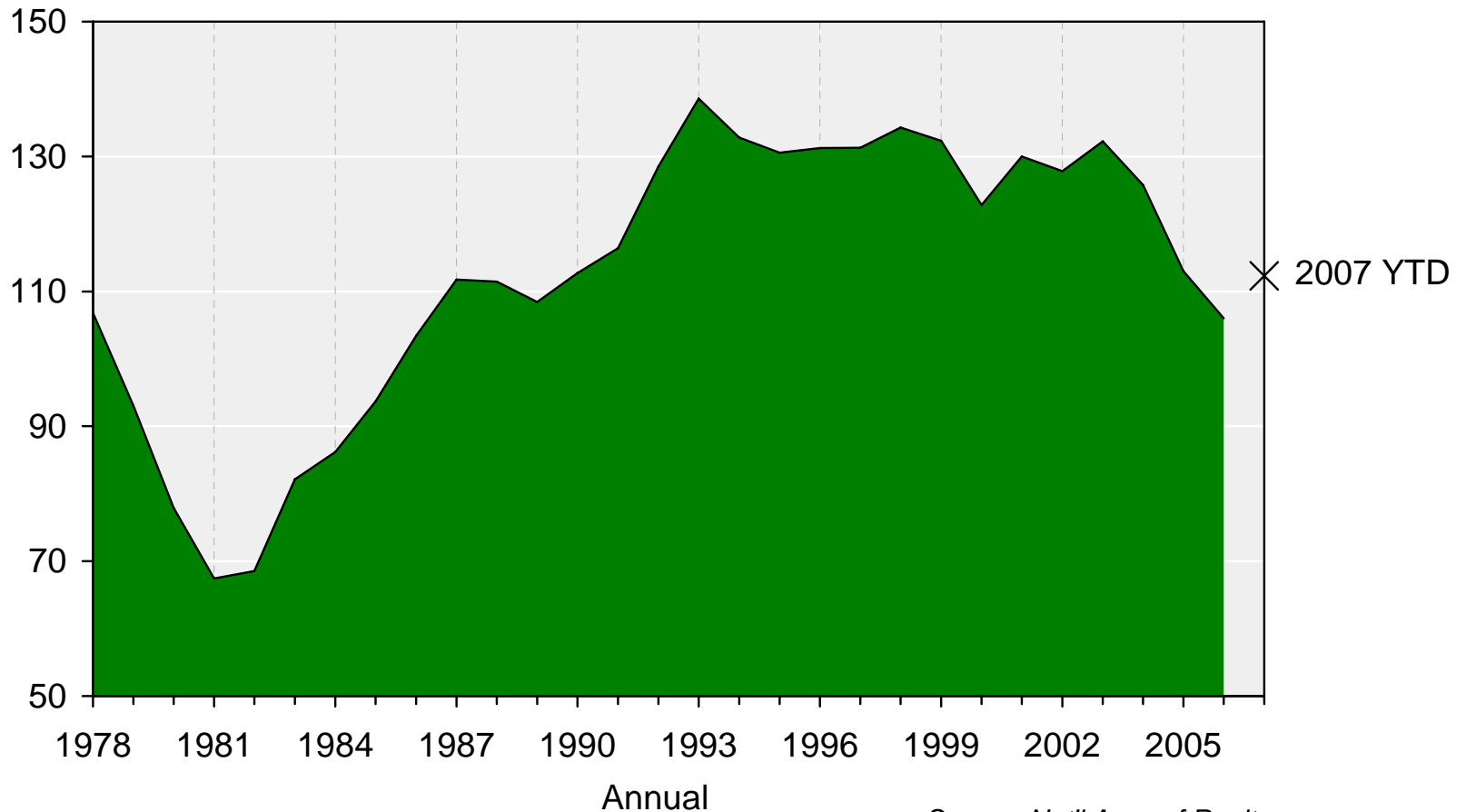
Source: Census

Extremely good period to buy a house

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U.S. Housing Affordability Index



AMDIR06C

Source: Nat'l Assn of Realtors

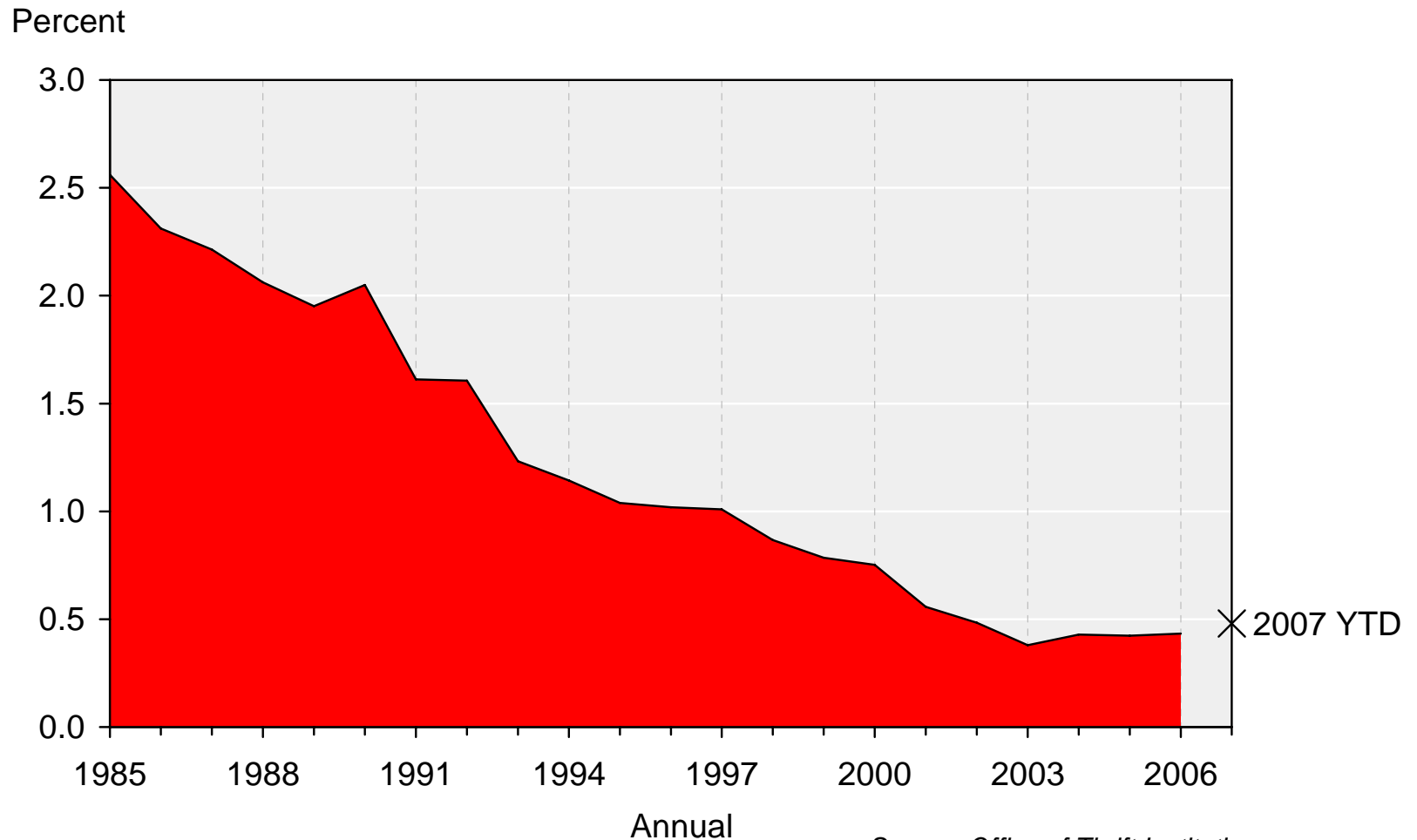
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Technology lowered the cost of originating mortgages for purchase and finance

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Conventional Mortgages Initial Fees and Charges on all Loans



AMDIR41B

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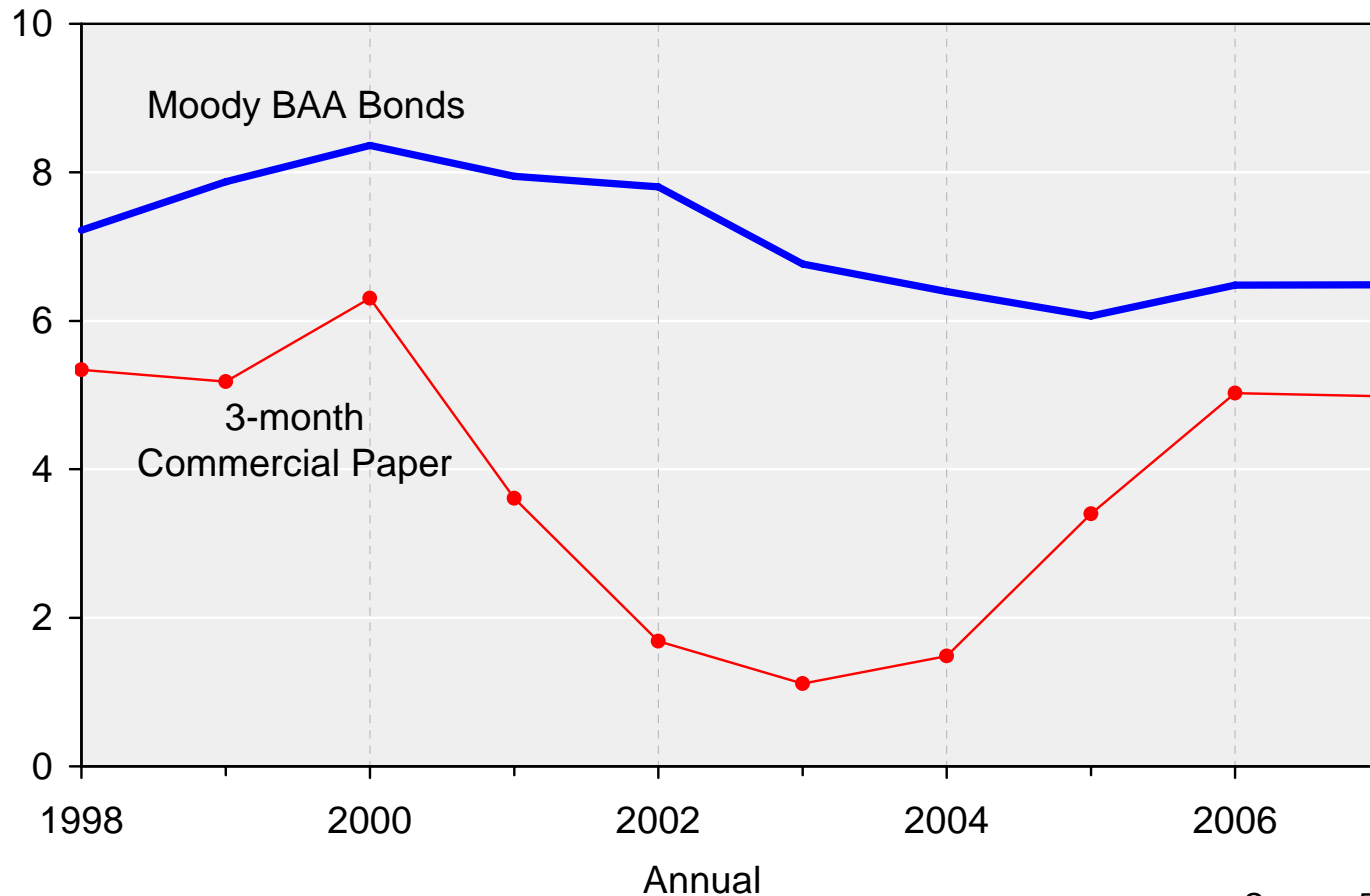
Fed actions after stock market crash, set-up housing boom / bubble

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U.S. Interest Rates

Percent



AMDIR87C

Source: FRB

7

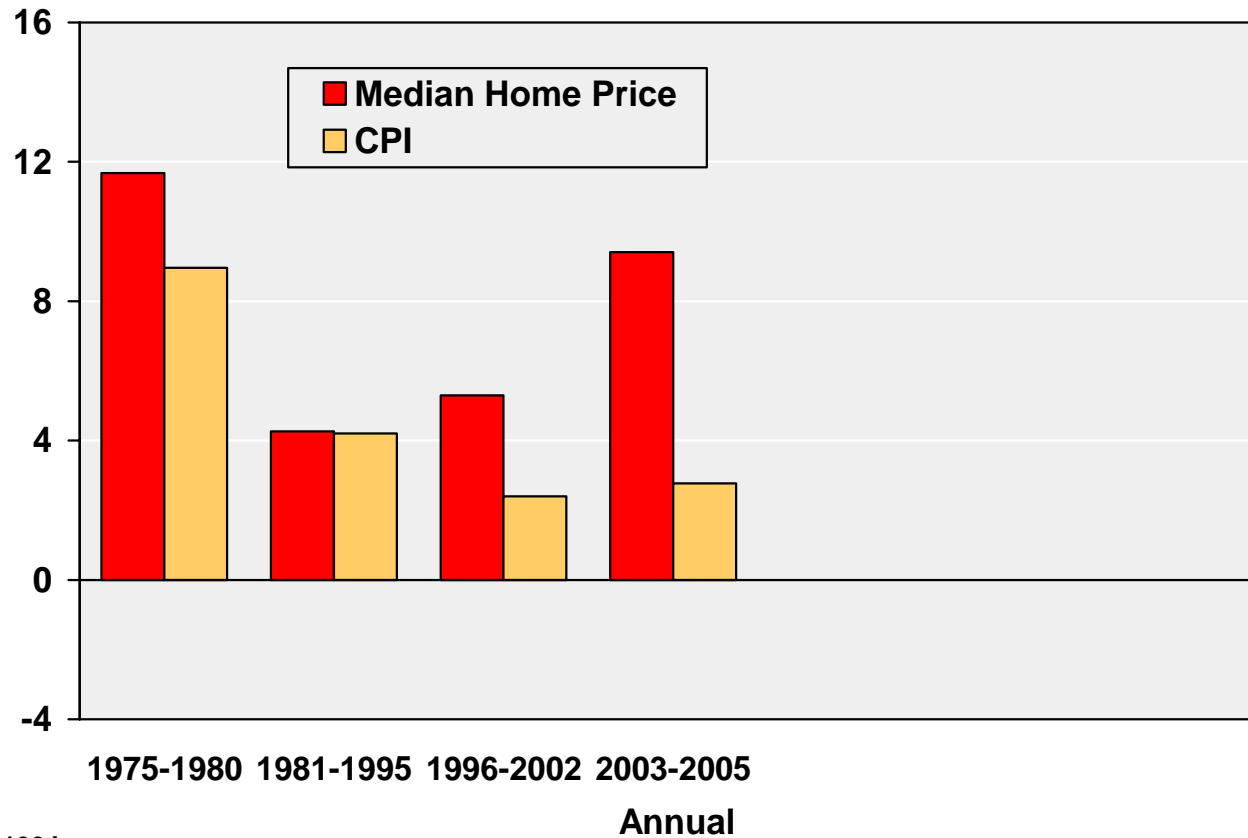
Housing became a great investment —again

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Average Annual Growth in Median Existing Home Price vs. Inflation (CPI)

Percent Change



AMDIR106J

Source: Nat'l Assn of Realtors, BLS

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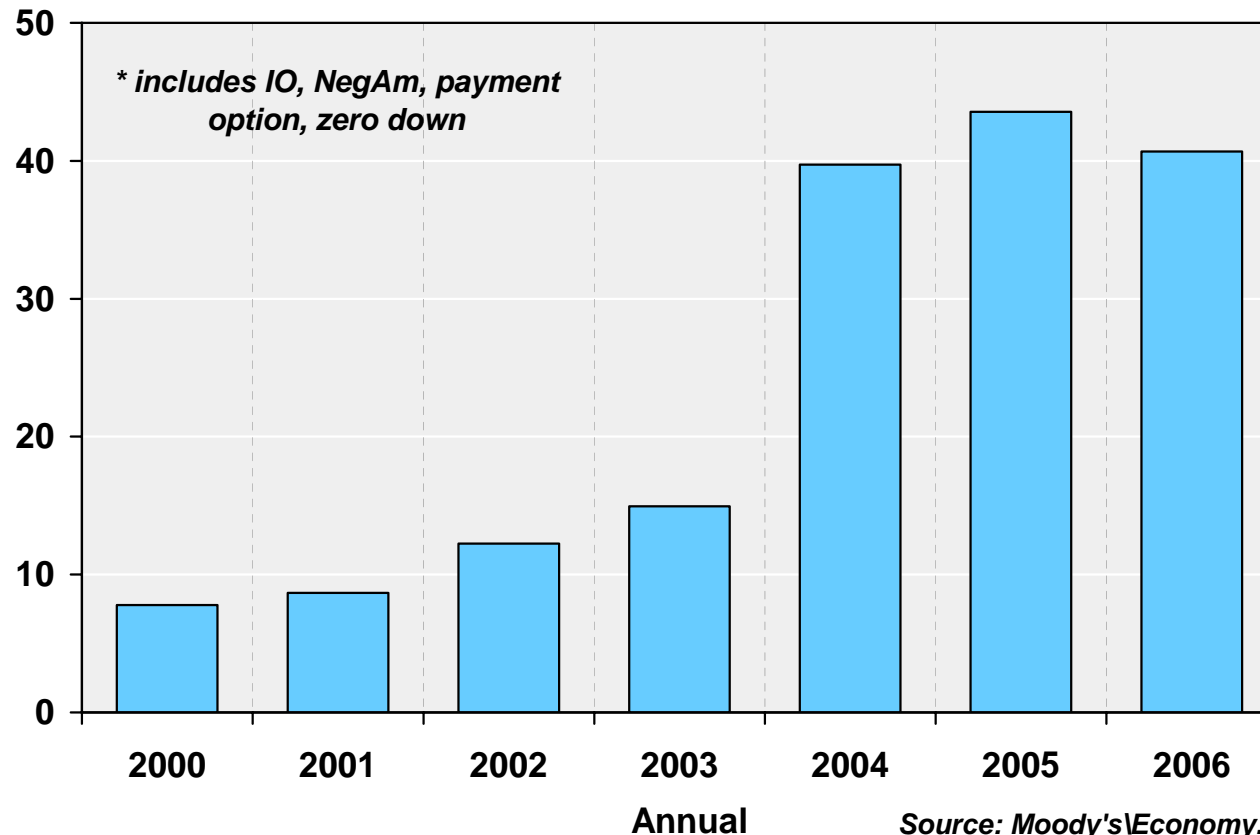
Big step-up in the use of unconventional lending

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Nontraditional Mortgage* Share of Home Sales Using a Mortgage

Percent



AMDIR46B

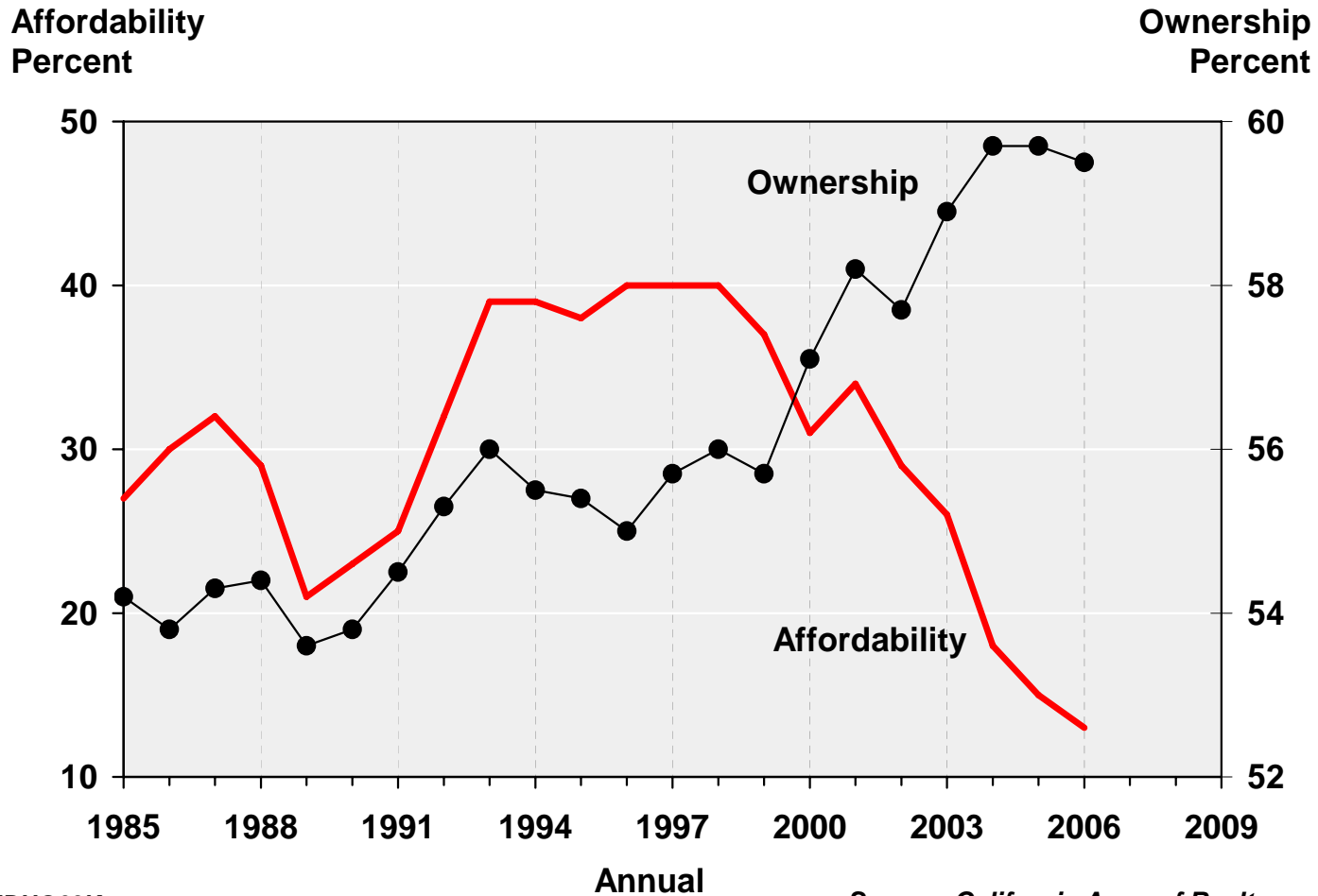
Source: Moody's\Economy.com,
National Assn' of Realtors, Census

Clearly not a sustainable situation

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Percentage of Households Able to Afford the Median Priced Home vs. Ownership Rate in California



AMDHO63K

Source: California Assn of Realtors

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Understanding Current Housing Cycle and Implications for Recovery

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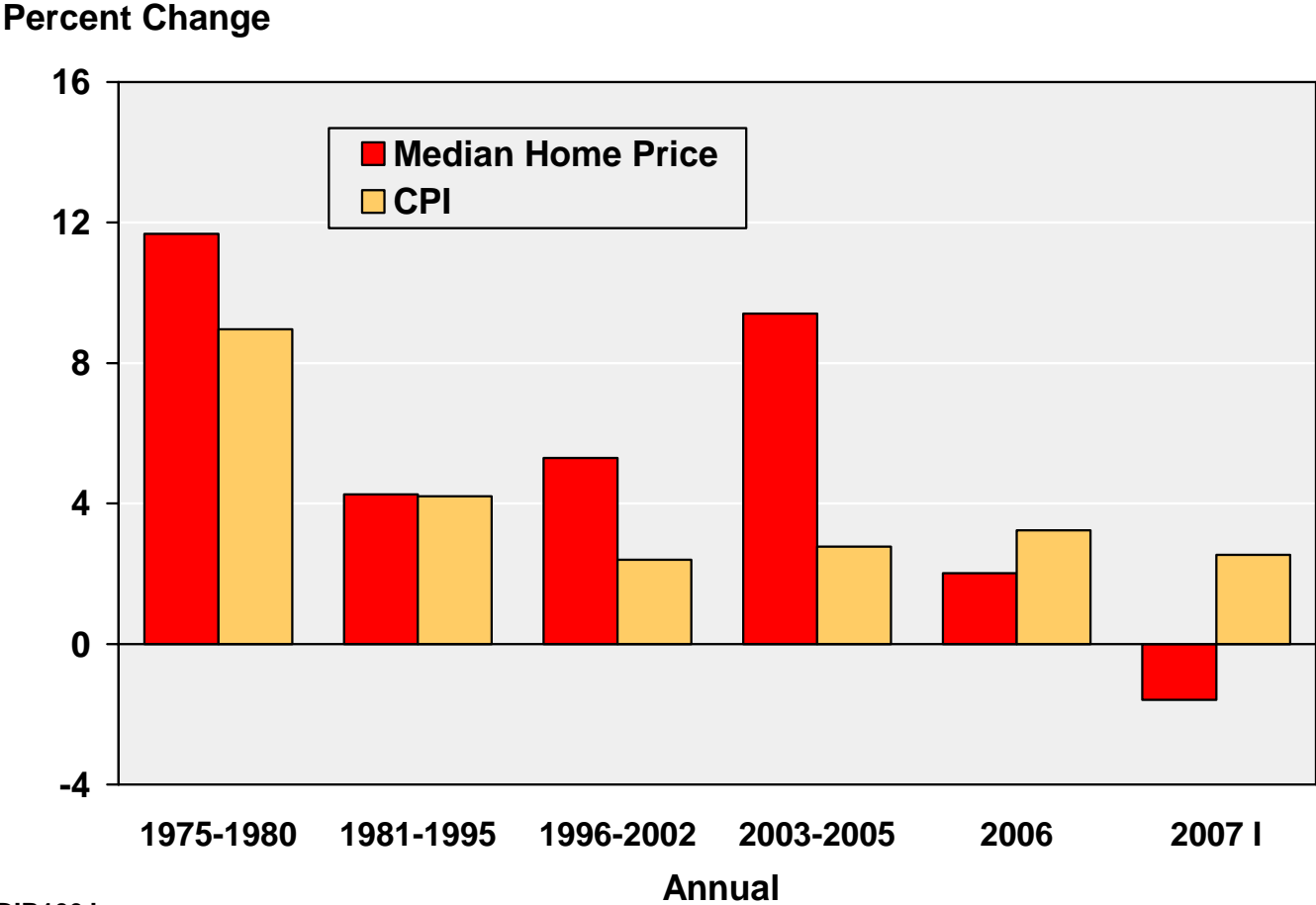
- Single-family boom has roots in 1995-2003 trend
- Housing boom of 2003-06 fueled by extremely easy monetary policy
- Unlike previous downturns, this one not being caused by tight money

Market no longer attractive to investors

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Average Annual Growth in Median Existing Home Price vs. Inflation (CPI)



AMDIR106J

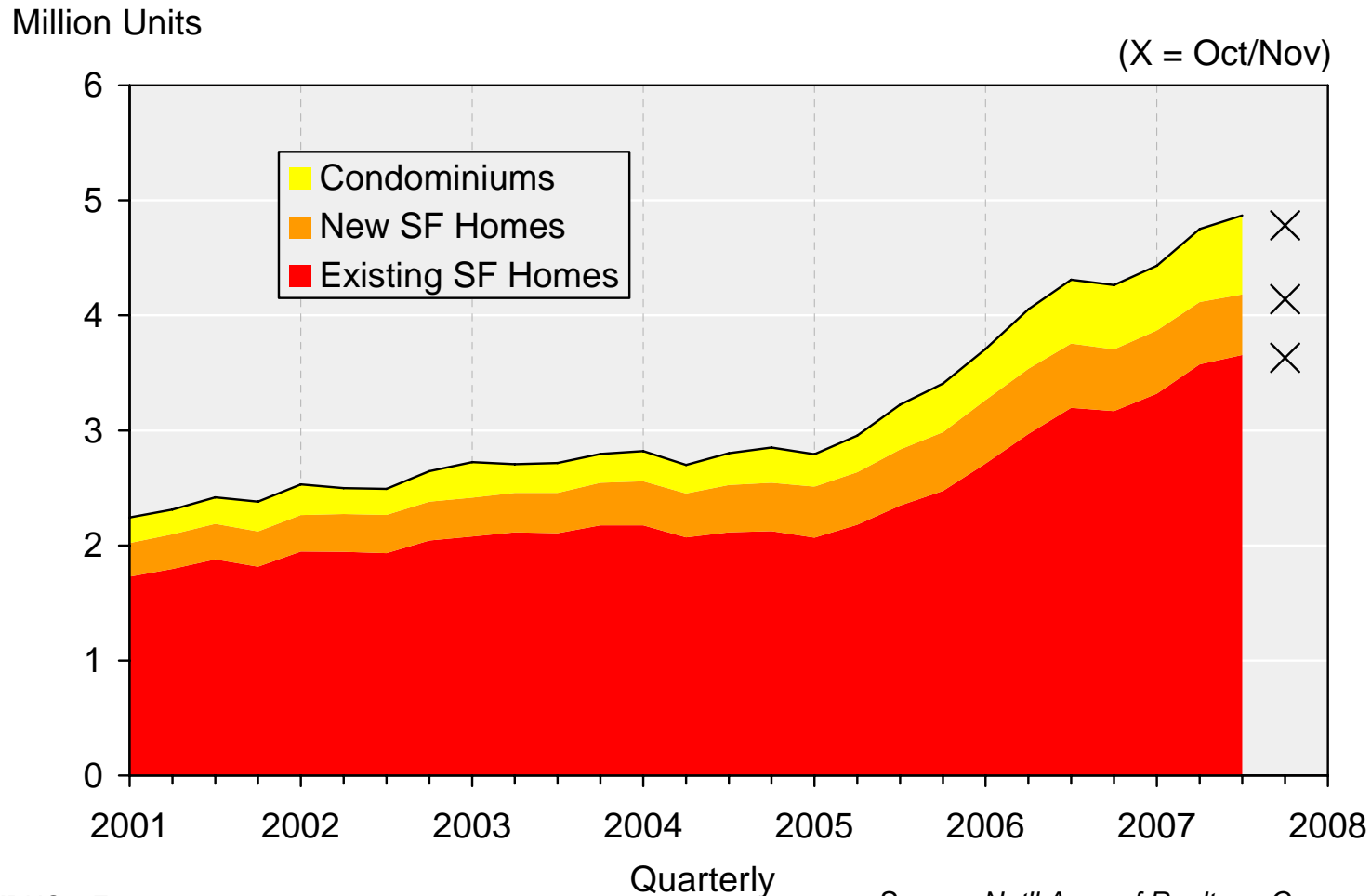
Source: Nat'l Assn of Realtors, BLS

Equal to a 10-month supply... highest in 16 years

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Inventory of Homes and Condominiums for Sale



QMDHO79F

Source: Nat'l Assn of Realtors, Census

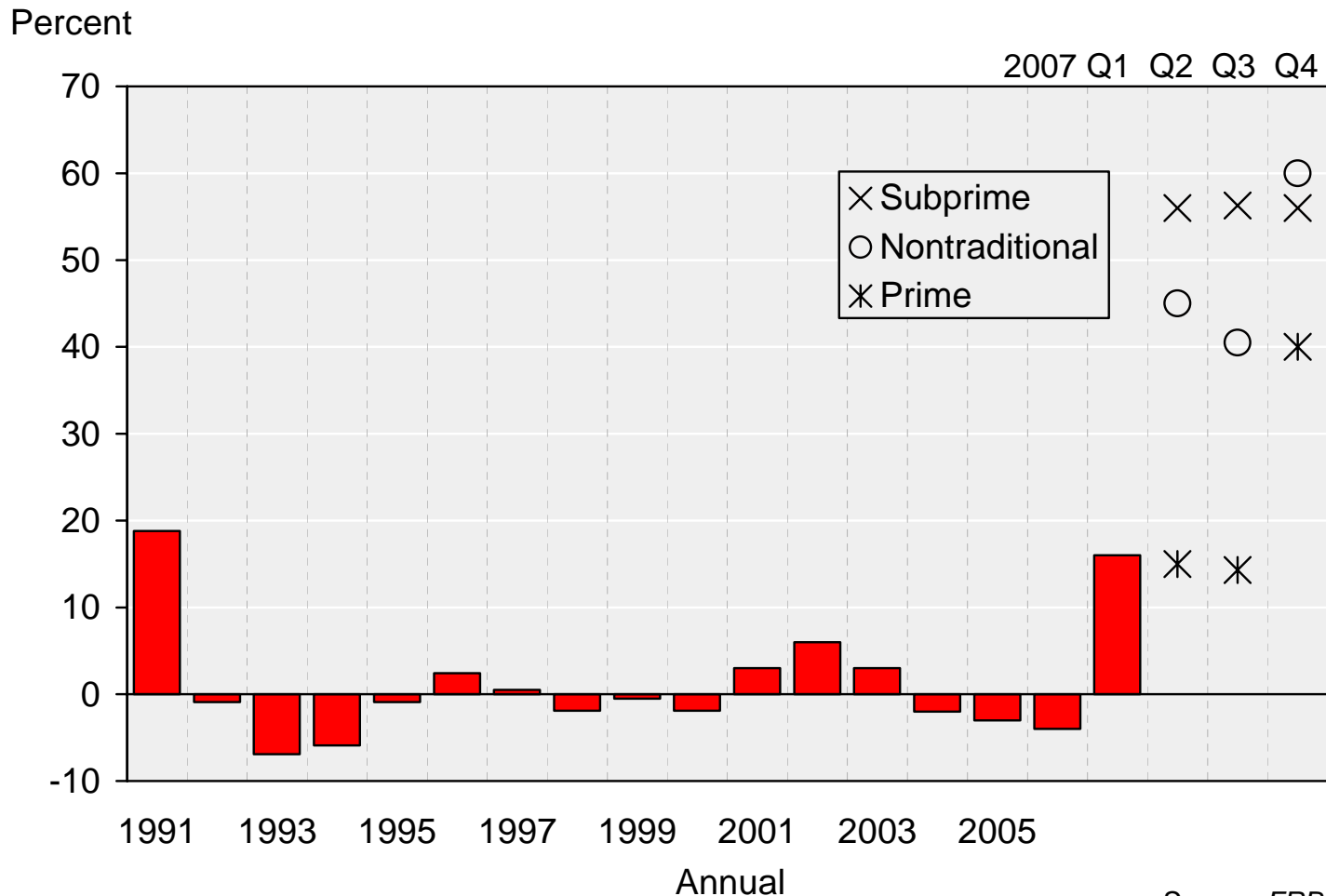
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Tightening raises effective borrowing costs

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Net Percentage of Banks Tightening Standards for Mortgages



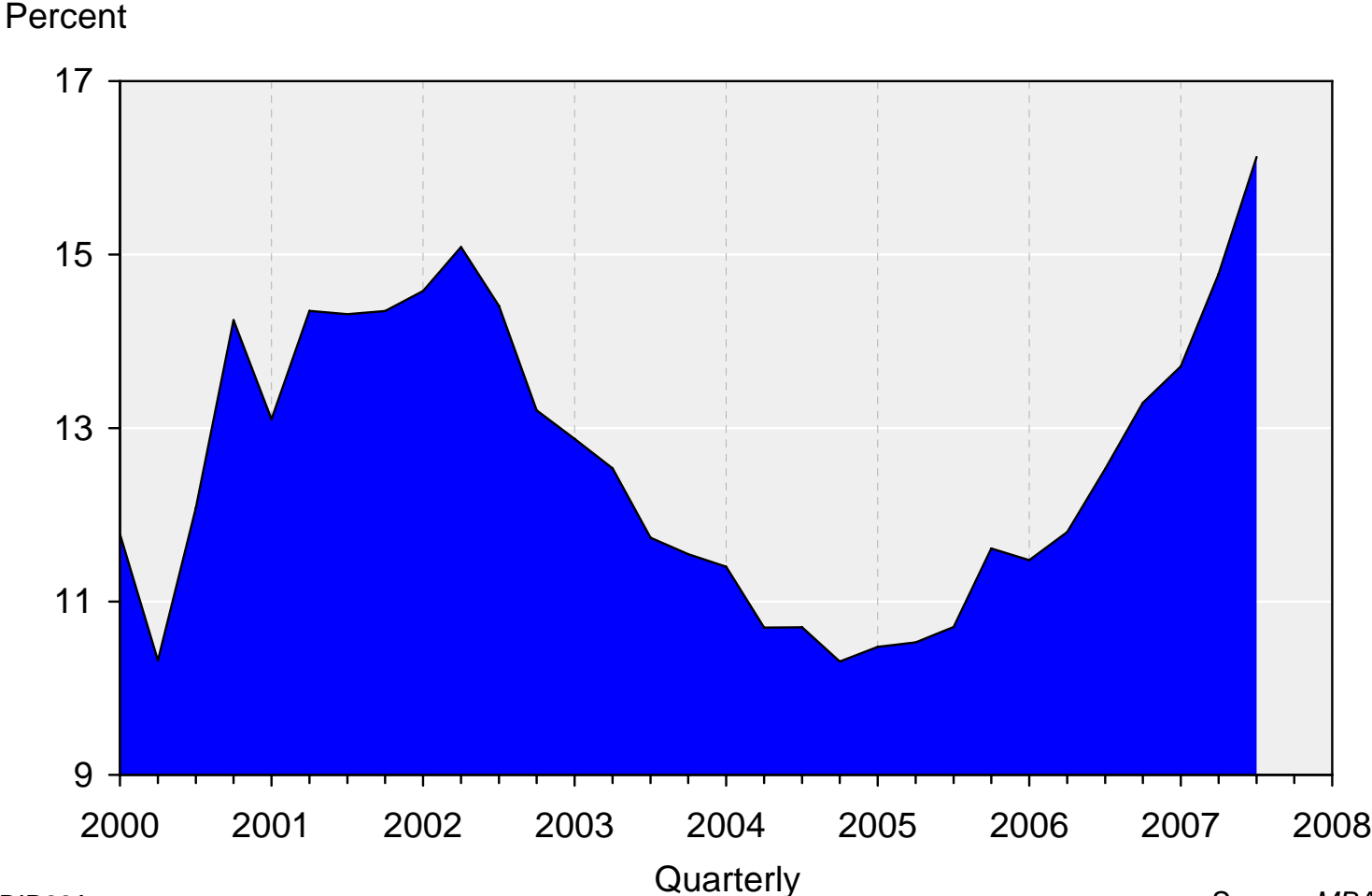
AMDIR113B

Source: FRB

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Another problem needs to be corrected: Risky loans

Mortgage Delinquencies Subprime Loans With Installments Past Due



Understanding Current Housing Cycle and Implications for recovery

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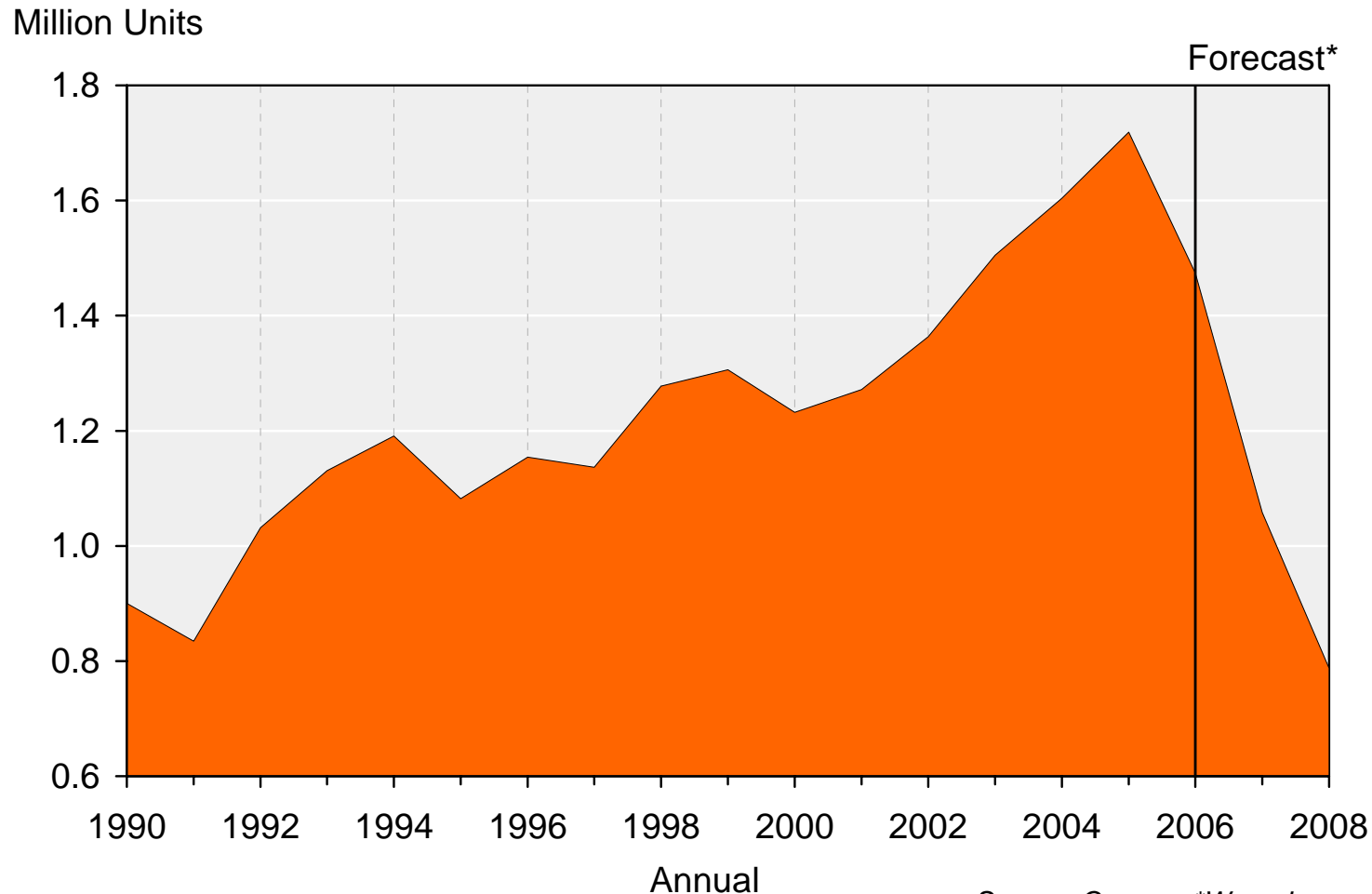
- Single-family boom has roots in 1995-2003 trend
- Housing boom of 2003-06 fueled by extremely easy monetary policy
- Unlike previous downturns, this one not being caused by tight money
- Now in an inventory correction period where extent of inventory is uncertain and varies by regional market
 - Estimating “hidden” inventory is difficult—potential foreclosure rates for sub-prime and alt-a loans

Further declines needed to eliminate inventory

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U.S. Single-family Housing Starts



AMDHO19J

Source: Census, *Weyerhaeuser

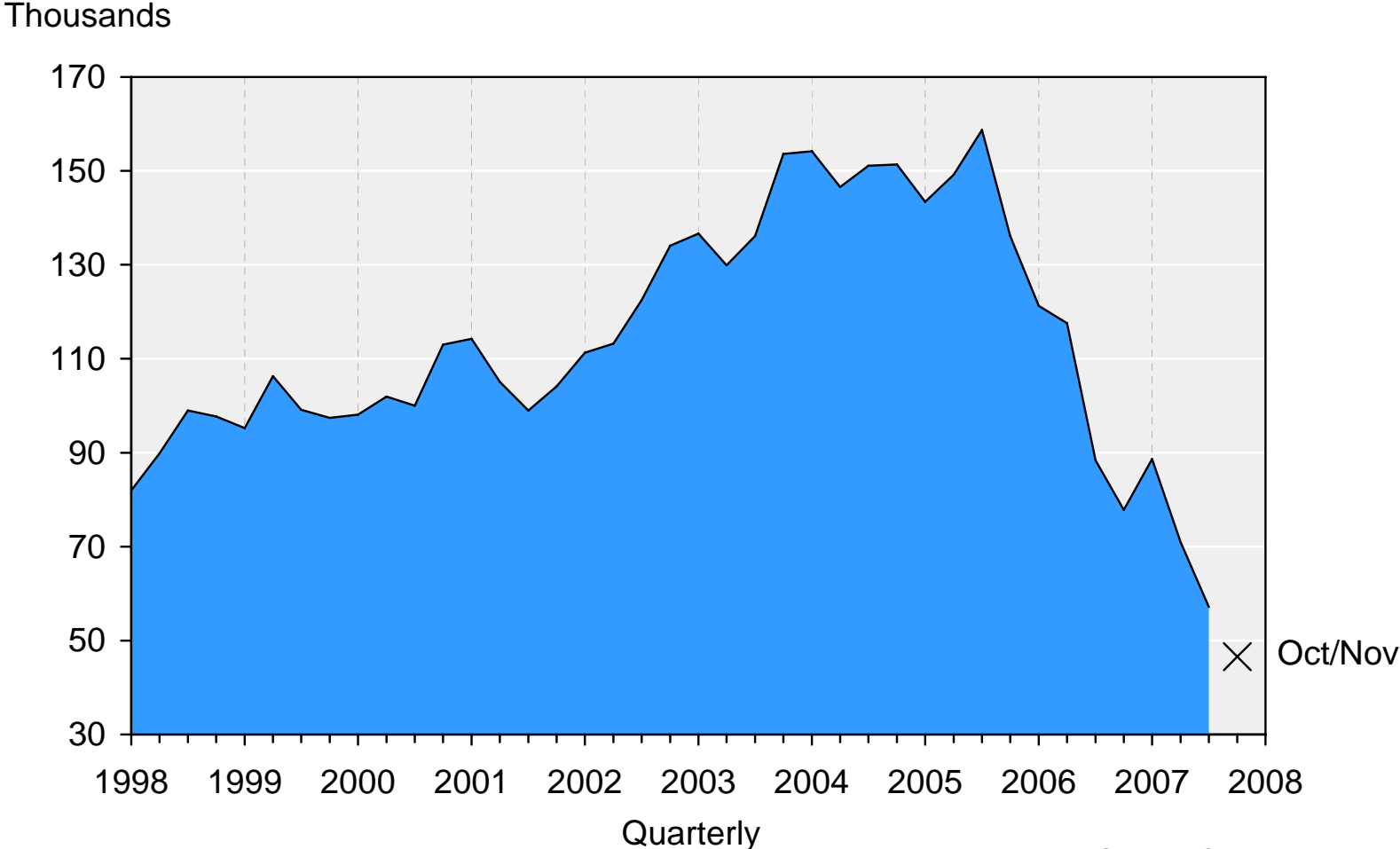
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Some regional markets face particular challenges

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Single-family Building Permits for California (Seasonally Adjusted Annual Rate)



QMDHO65H

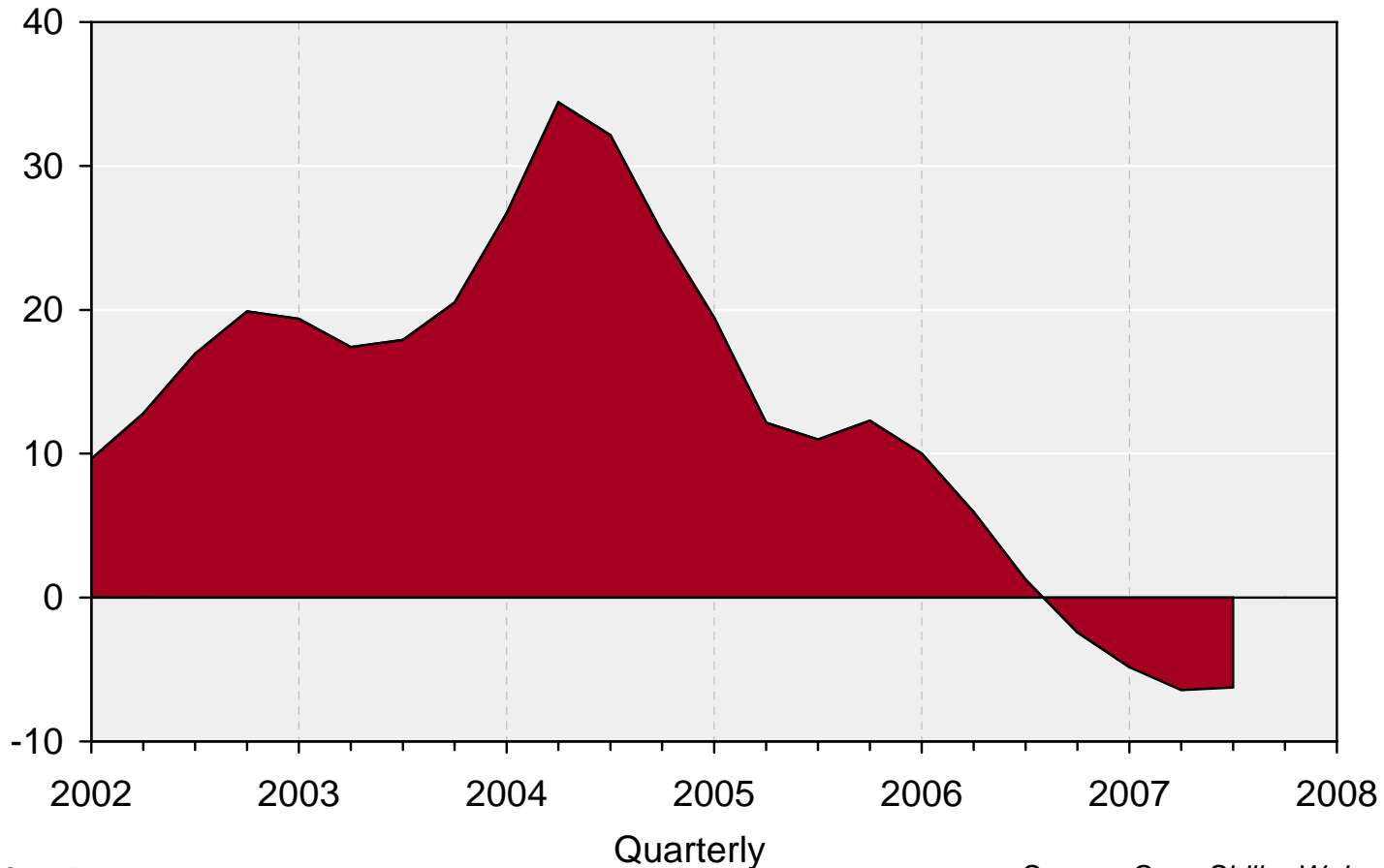
Bubble has clearly popped

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Median Price for Existing Single-family Homes in Southern California

% Change Year Ago



QMDHO108B

Source: Case Shiller Weiss

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Very positive long-term trends for single-family housing starts

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- Demographics — support 1.3-1.4 million
 - Immigration and aging population
- Average home size — trends up with income

Wood product demand sensitive to single-family housing starts

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Impact of Single-Family Housing on Wood Products Demand

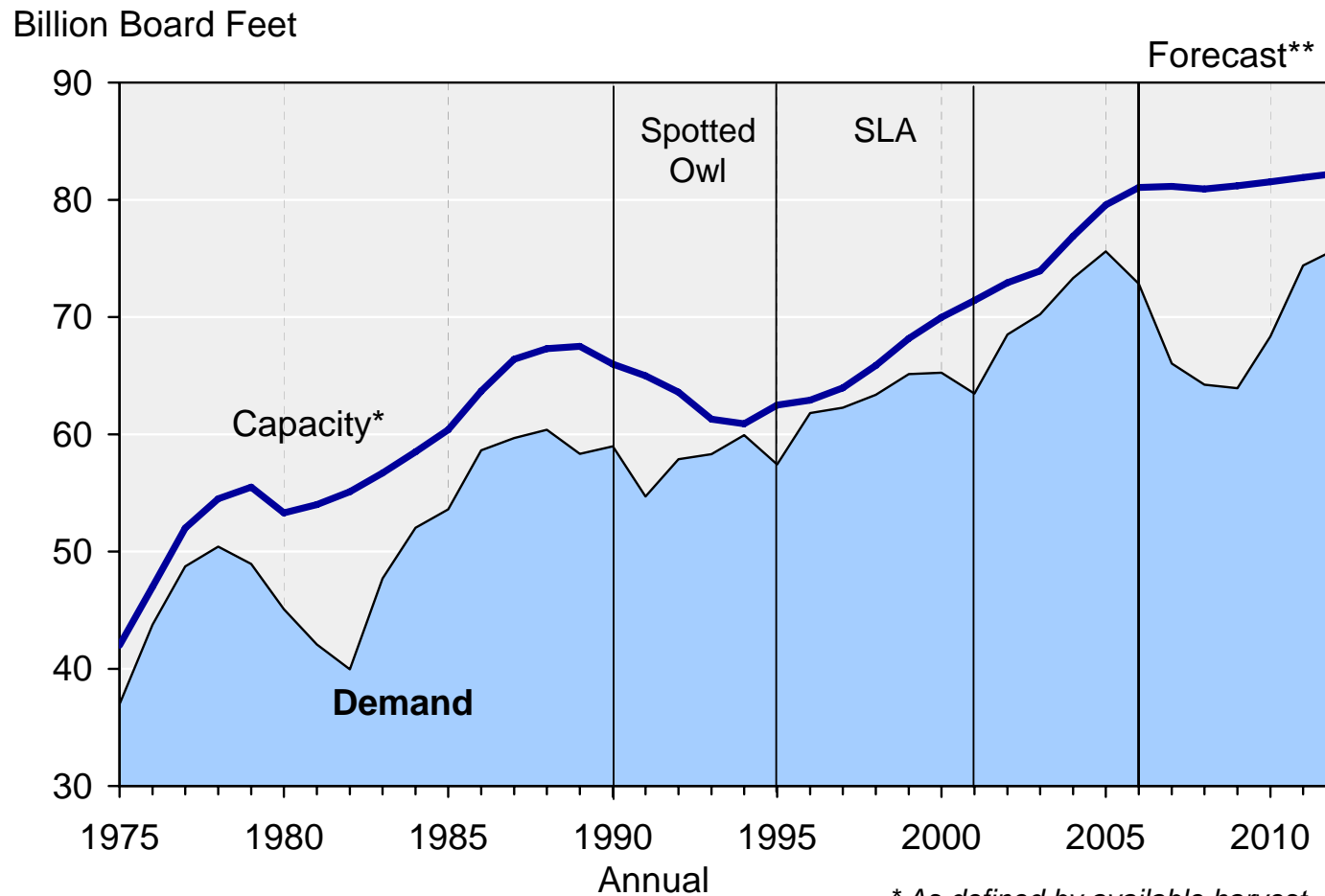
	Lumber	OSB	I-Joists
Change of 100,000 Starts Equals:	1.5 BBF	0.9 BSF	60 MMLF
Share of Total U.S. Demand	2.4%	3.8%	4.6%

Demand cycle similar to 1980s

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Demand on North American Lumber Mills vs. Capacity



AWDNALGD01B

* As defined by available harvest
Source: RISI, **Weyerhaeuser

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Dynamics of Adjustment Underway

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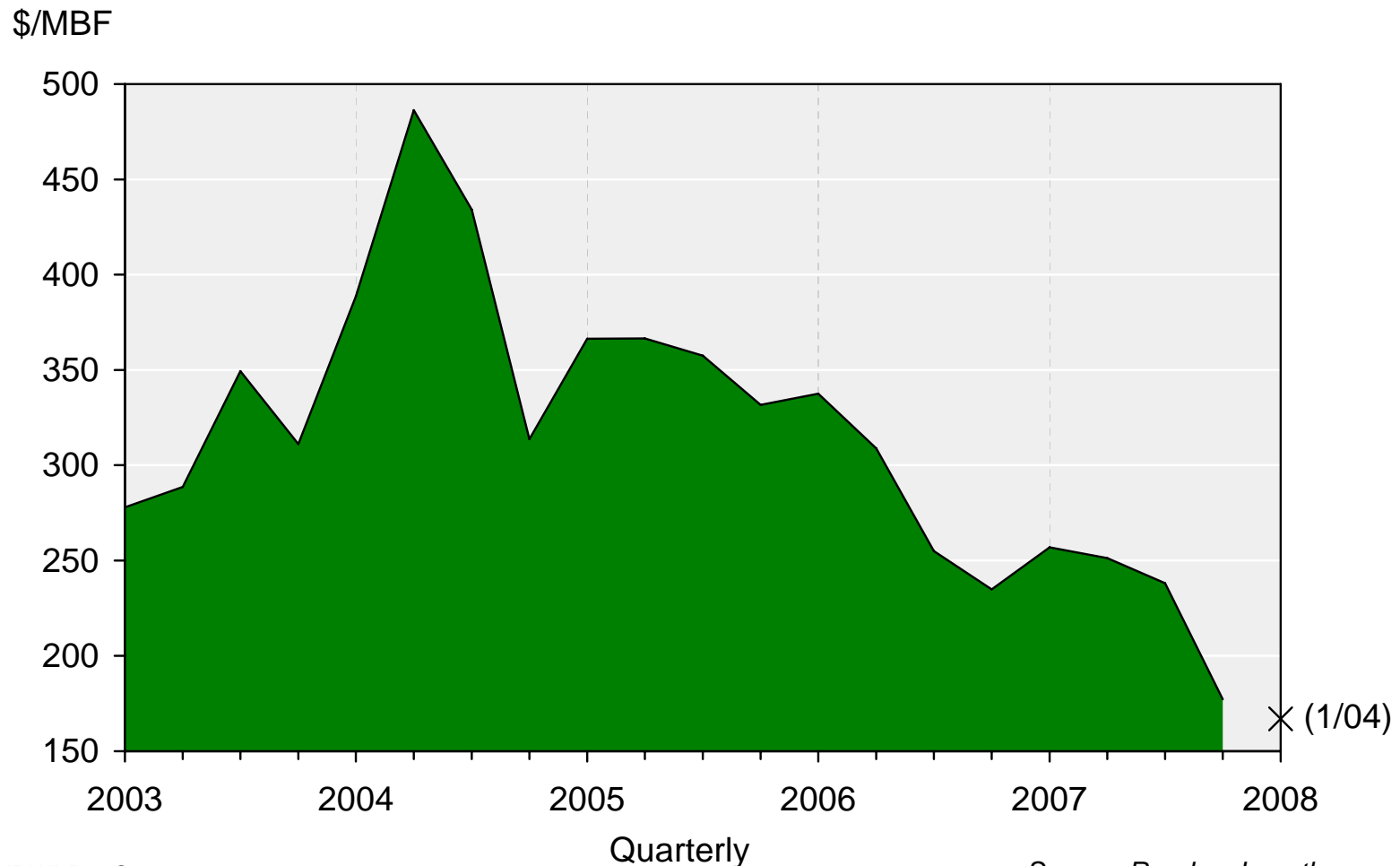
1. Housing starts decline lowers product demand
2. Price / margins needed to slow production by region
3. Lower production reduces log demand
4. Log prices decline eventually — timing depends on ownership
5. As U.S. costs decline, mills regain share
 - Canada curtails output

Step 2: Prices have plummeted, California key factor

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Douglas Fir 2x4 Green Lumber Price



QWDWLP09C

Source: Random Lengths

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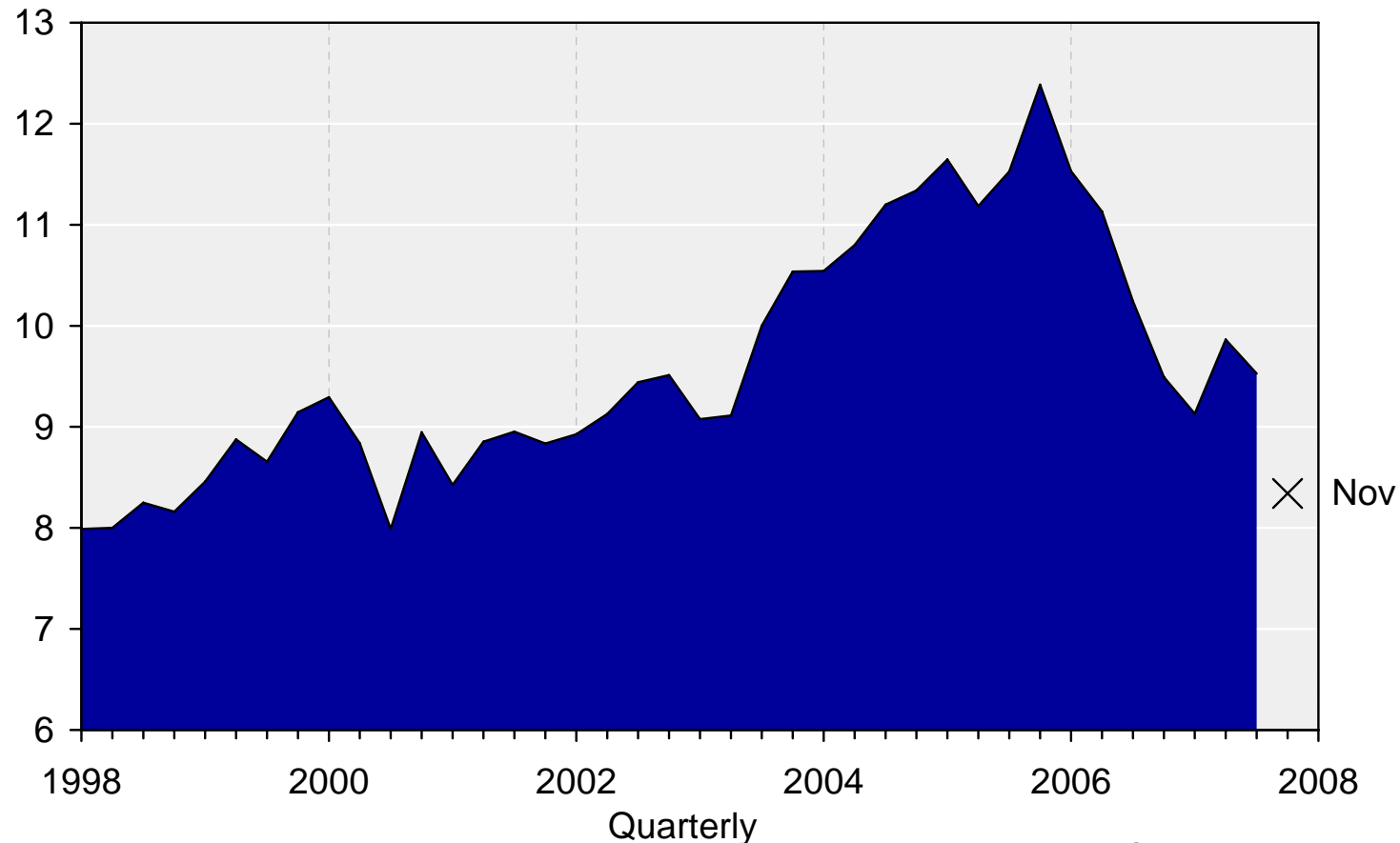
Step 3: Negative margins drove sharp production decline

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West Coast Lumber Production (SAAR)

Billion Board Feet



QWDUSLGP01E

Source: WWPA

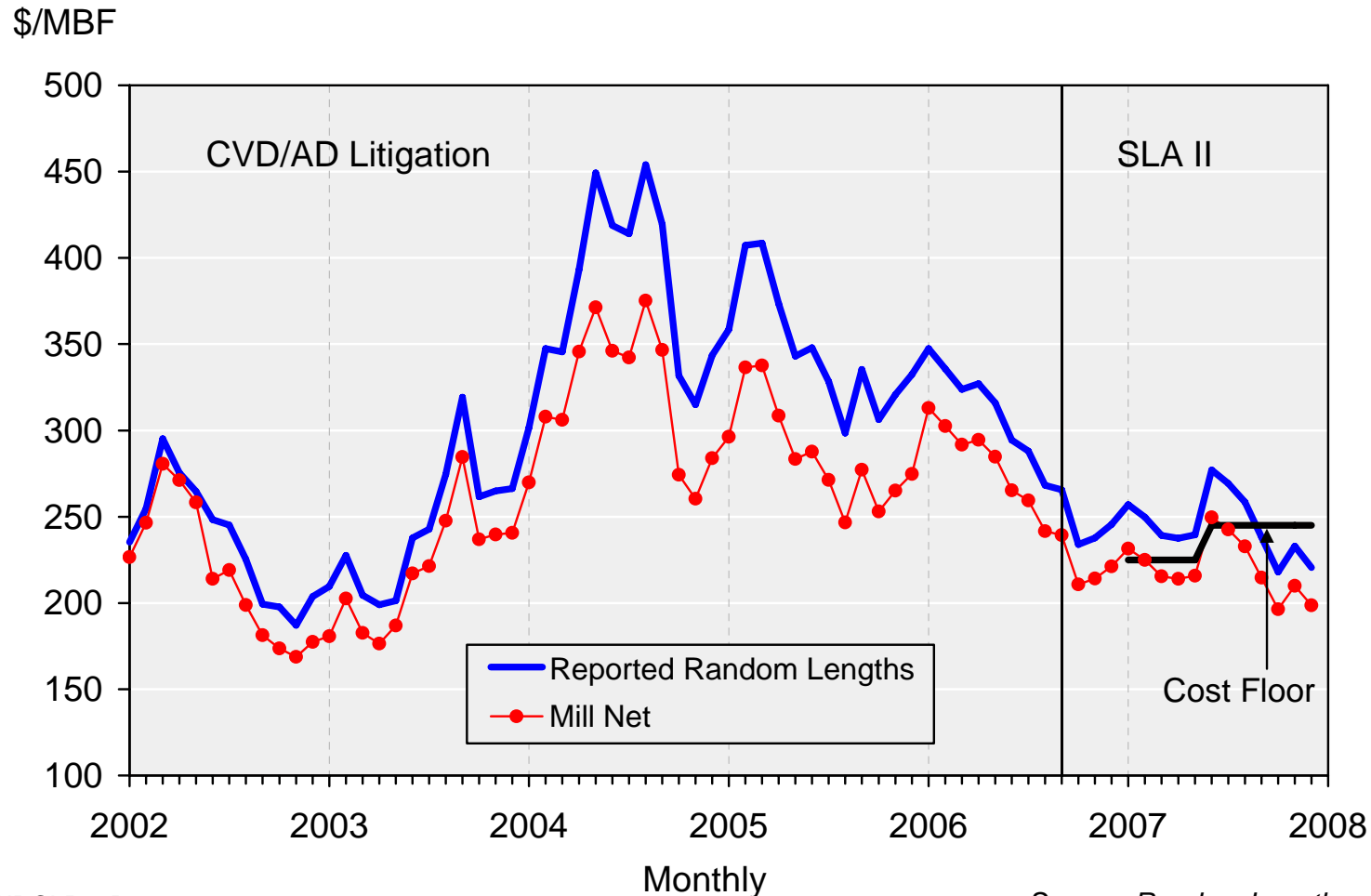
25

Low operating rate means price at or below cash cost

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Spruce-Pine-Fir 2x4 Mill Lumber Price



MWDCLP17D

Source: Random Lengths

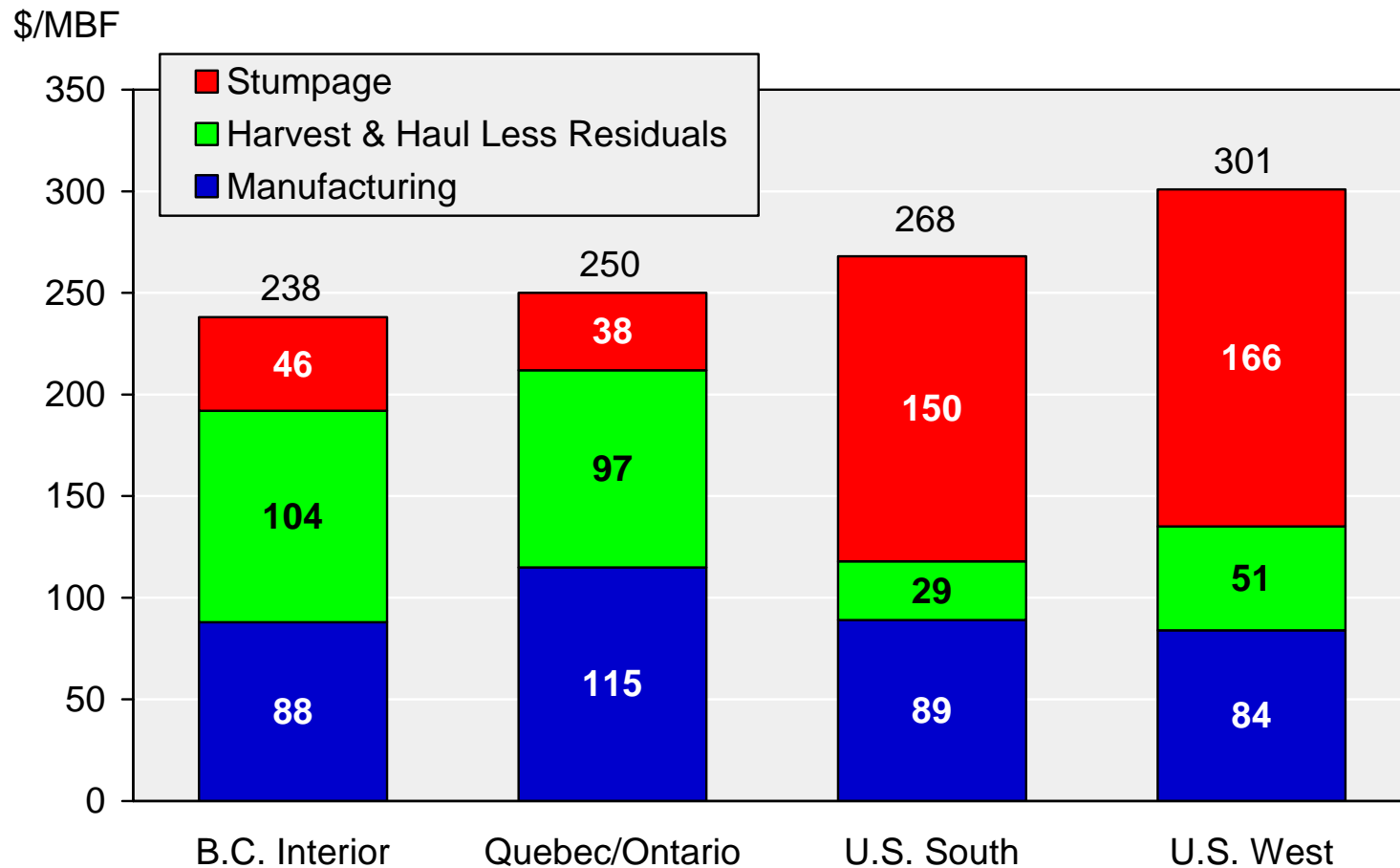
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Canadian costs: Mainly harvest and manufacturing — little room for adjustment

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Regional Sawmill Costs in 2006



XWDP01A

Source: RISI Survey

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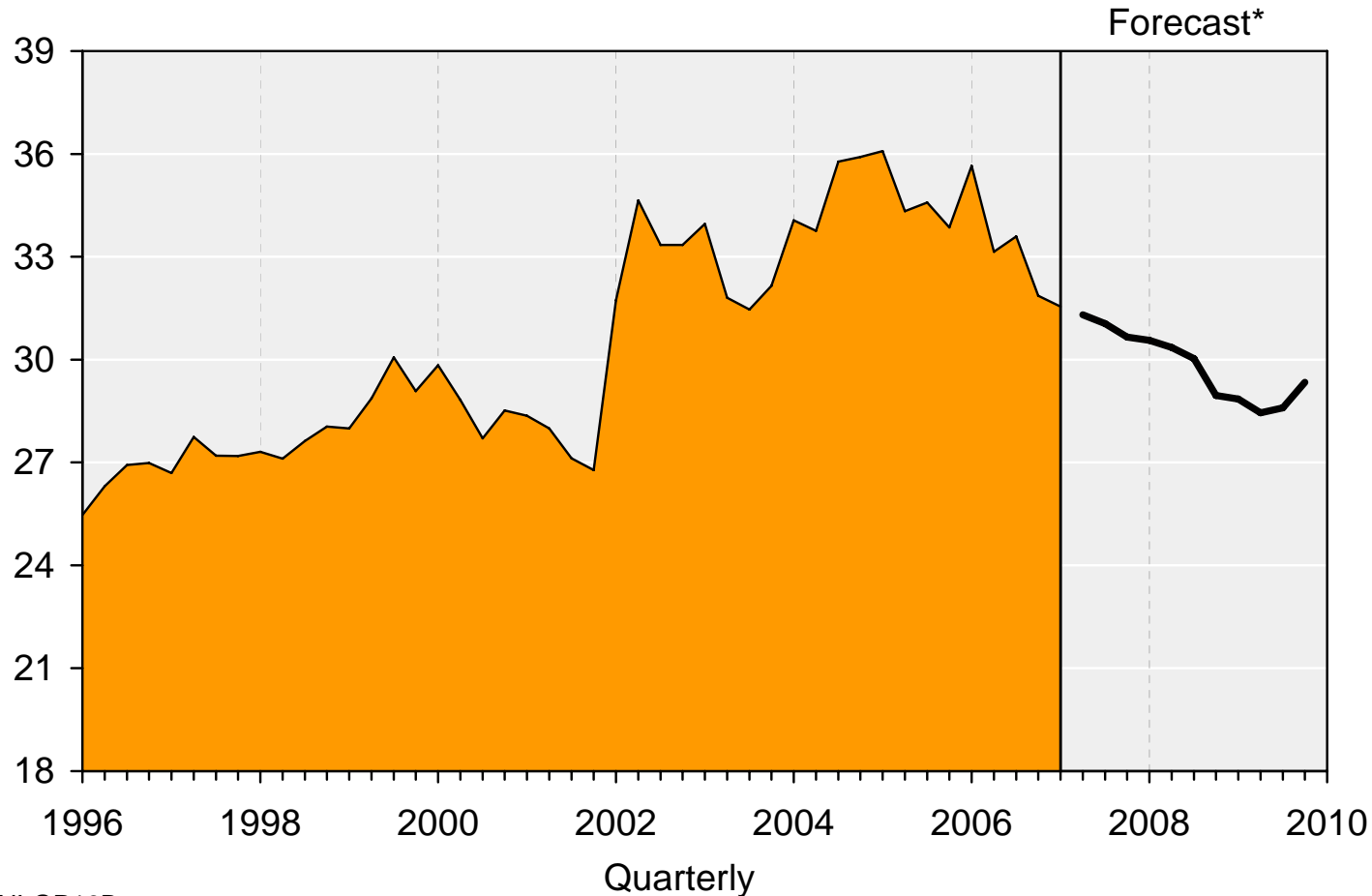
Sustained margin squeeze forces curtailments

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Canadian Lumber Production (SAAR)

Billion Board Feet



QWDCNLGP16B

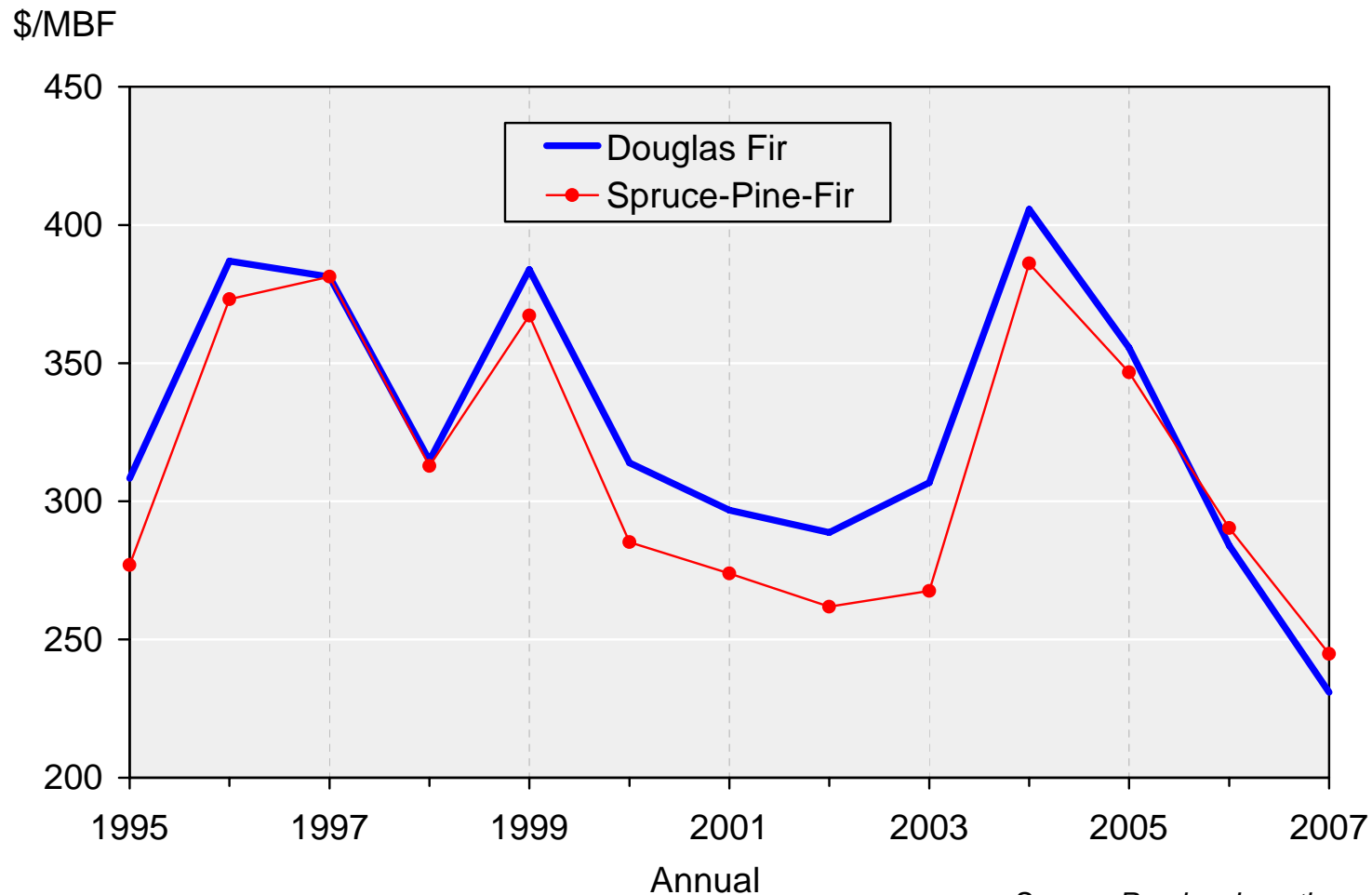
Source: COFI Stats, *Weyerhaeuser

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U.S. lumber prices based on SPF relationship January 2008



Douglas Fir 2x4 Green vs. Spruce-Pine-Fir 2x4 Mill Lumber Price



AWDWLP19B

Source: Random Lengths

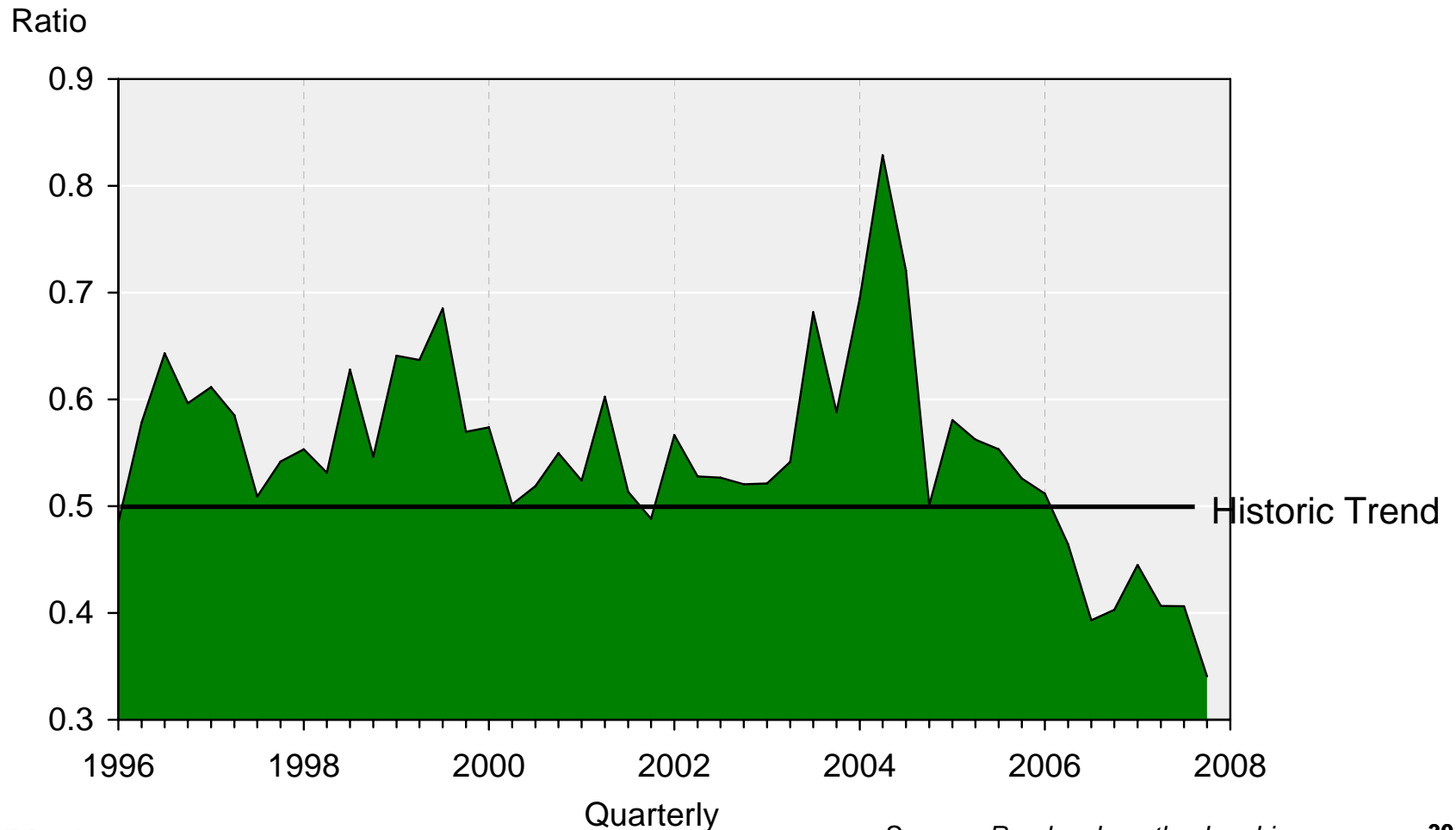
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Historic trend based on recovery - Log price adjustment needed

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Ratio of Douglas Fir 2x4 Green to Douglas Fir #2 Sawlog Price



QINDP08A

Source: Random Lengths, Log Lines

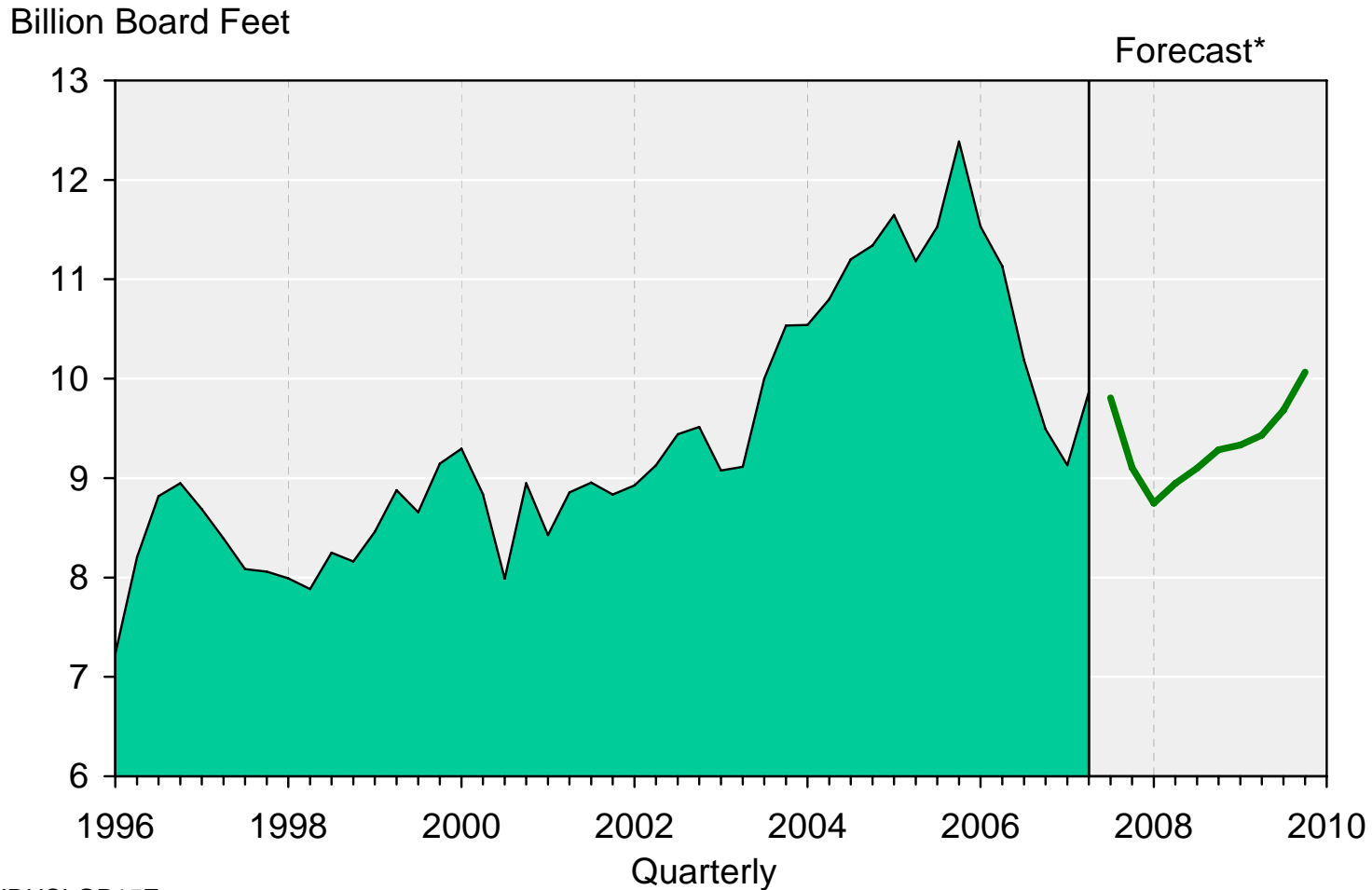
30

Production can only recover with log price correction

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West Coast Lumber Production (SAAR)



QWDUSLGP15F

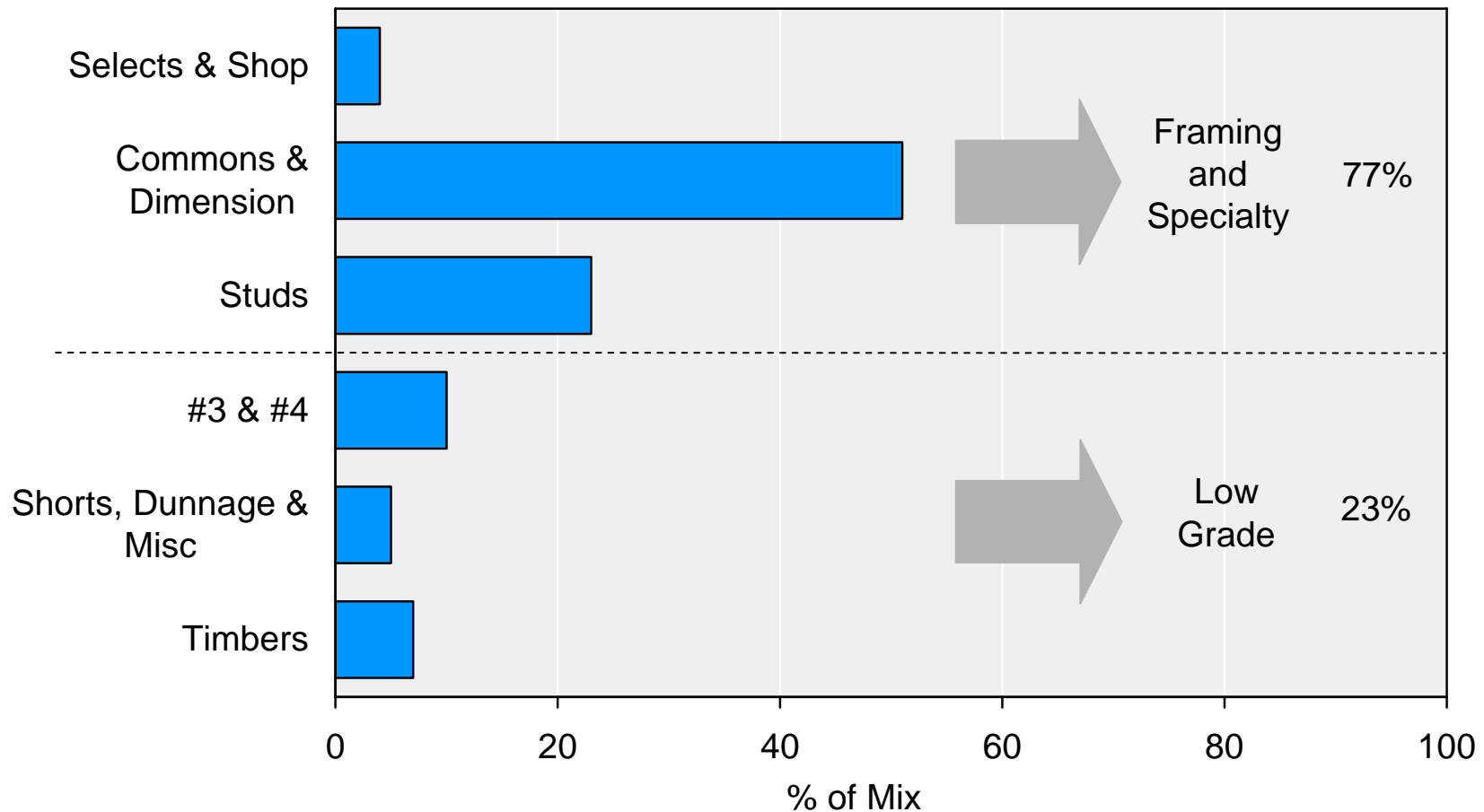
Source: WWPA, *Weyerhaeuser

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Factors driving pallet sector: Softwood supply January 2008



Western Lumber Dimension Grade Mix 2006



AWDUSLGD29B

Source: WWPA Statistics

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Factors Driving Pallet Sector

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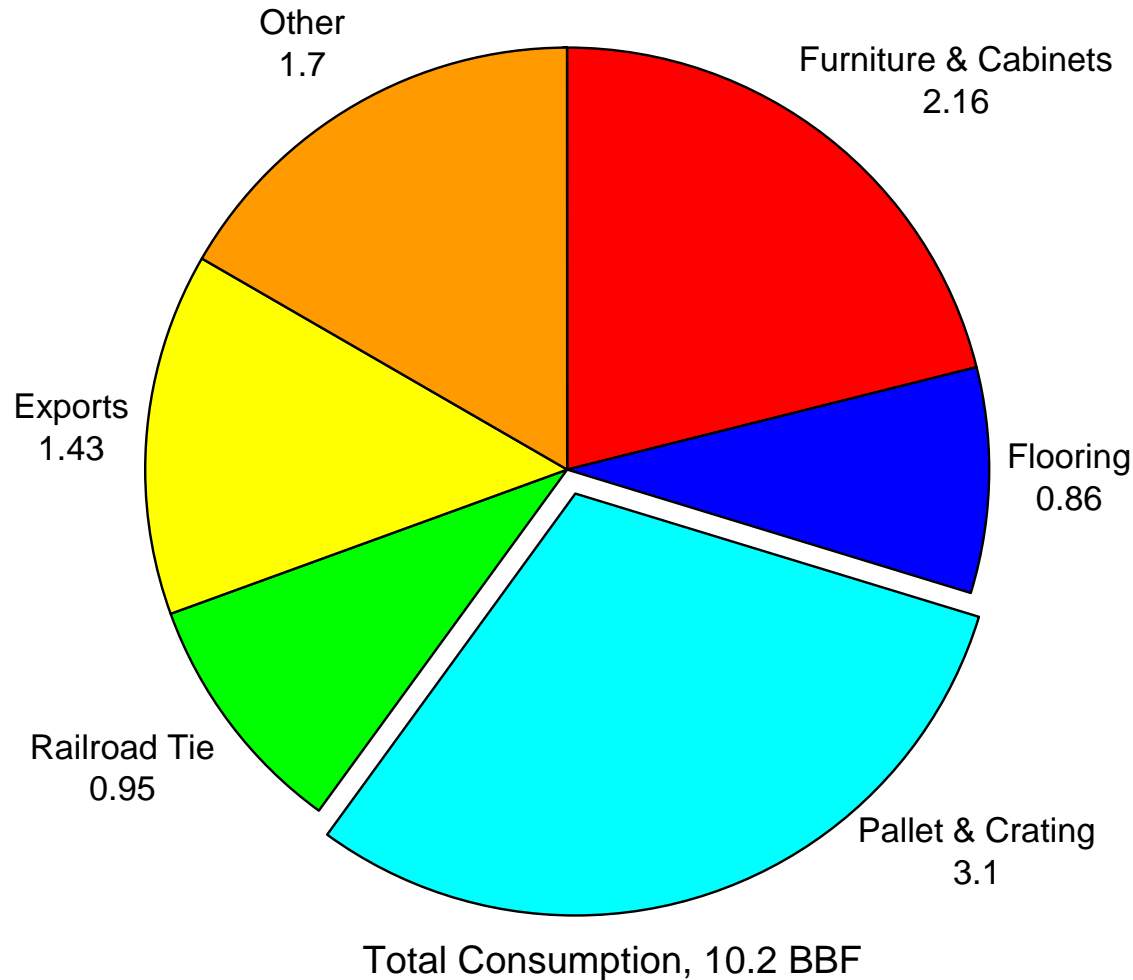
- Softwood Lumber Supply
- Hardwood Supply
 - Pallets account for 30% of hardwood consumption *but*
 - Available lumber production driven by high grade segments
 - Furniture and Cabinets
 - Flooring
 - End uses are related to housing
 - Low grade lumber tends to be downfall from milling process

Pallet sector is largest consumer of hardwood

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Hardwood Lumber Consumption, 2006
(Billion Board Feet)



AWDG31C

Source: *Hardwood Review*

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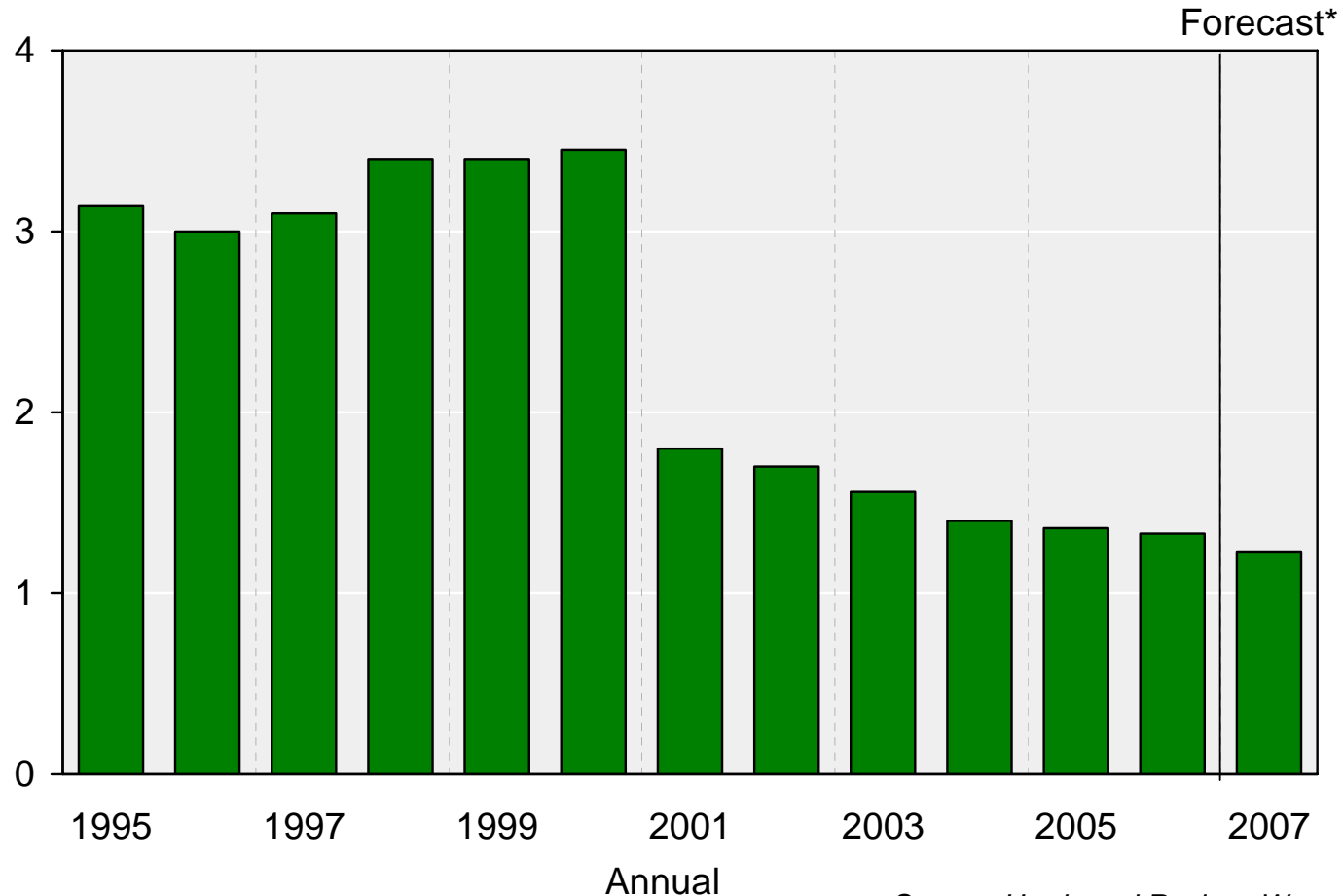
Collapse due to manufacturing exodus to China

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N.A. Hardwood Lumber Consumption for Furniture

Billion Board Feet



AWDUSLGD27B

Source: Hardwood Review, Weyerhaeuser*

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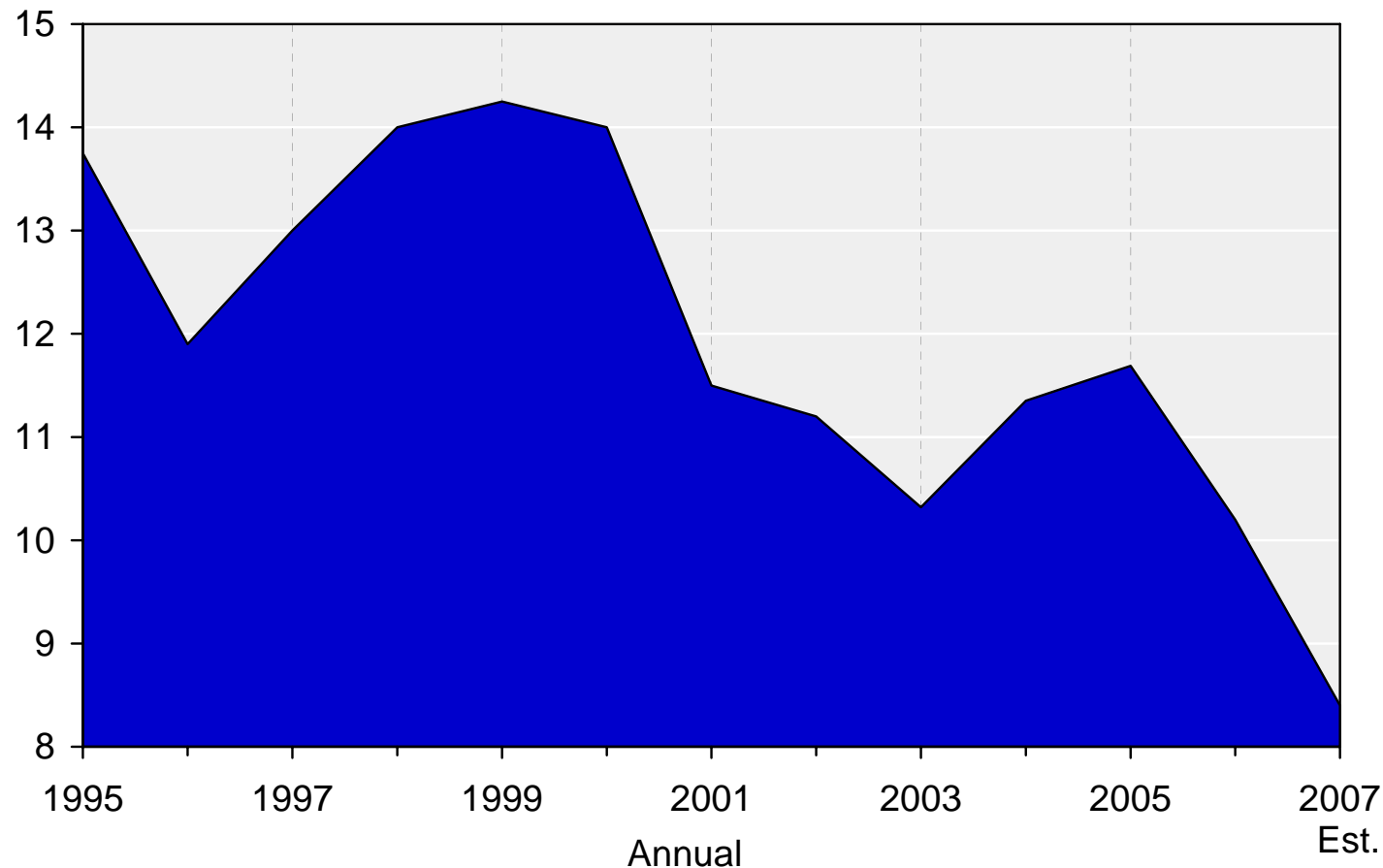
Result has been declining production

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North American Hardwood Production

Billion Board Feet



AWDUSLGD26C

Source: Hardwood Market Report

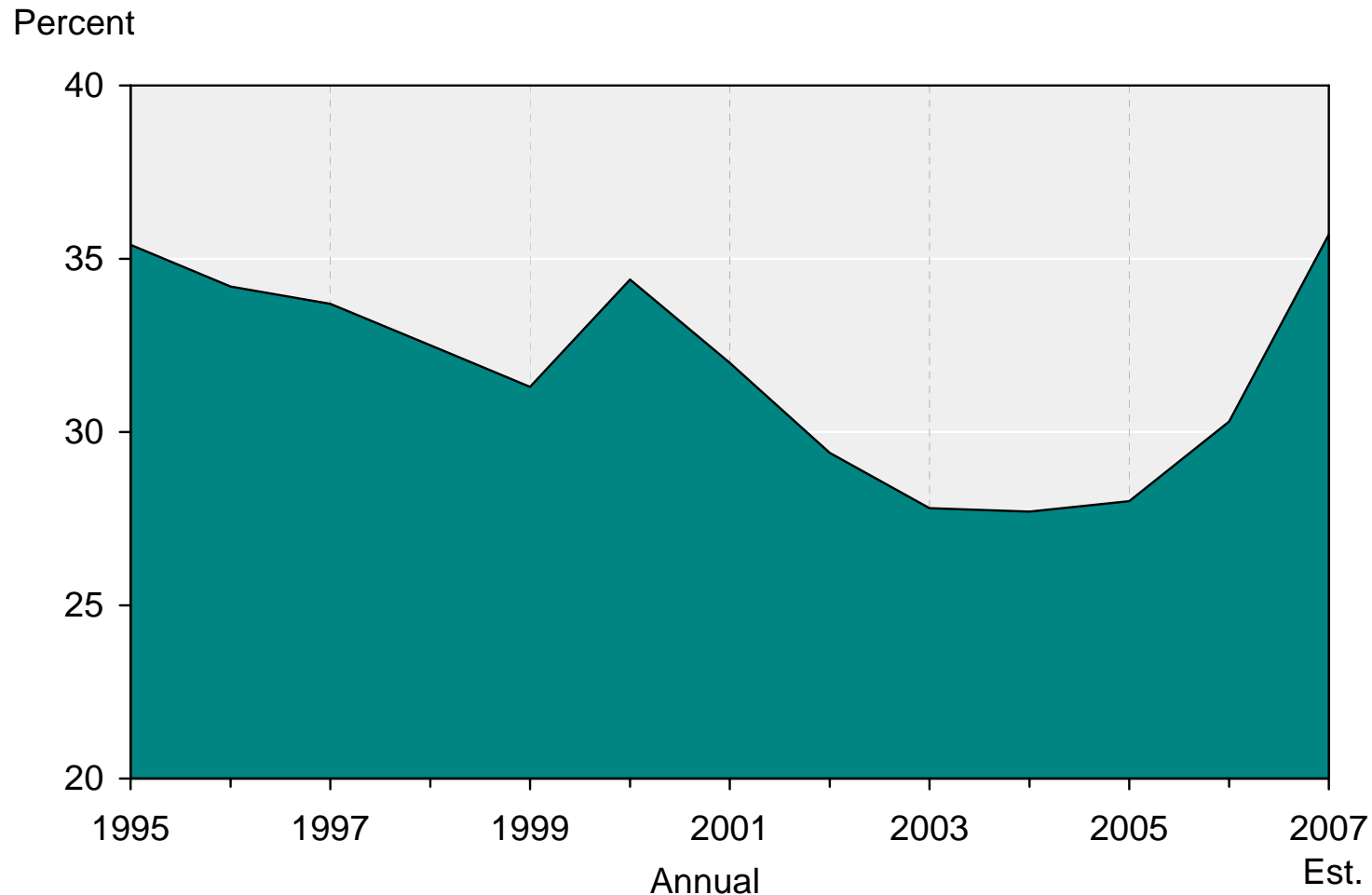
36

And a share gain as housing related demand shrinks

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Share of North American Hardwood Lumber Utilized in Pallets & Crating



AWDG45A

Source: *Hardwood Review Weekly*

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Factors Driving Pallet Sector

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- Supply
- Demand
 - Growth in overall economy
 - Closely related to industrial production
 - Durable goods tend to be large users of pallets

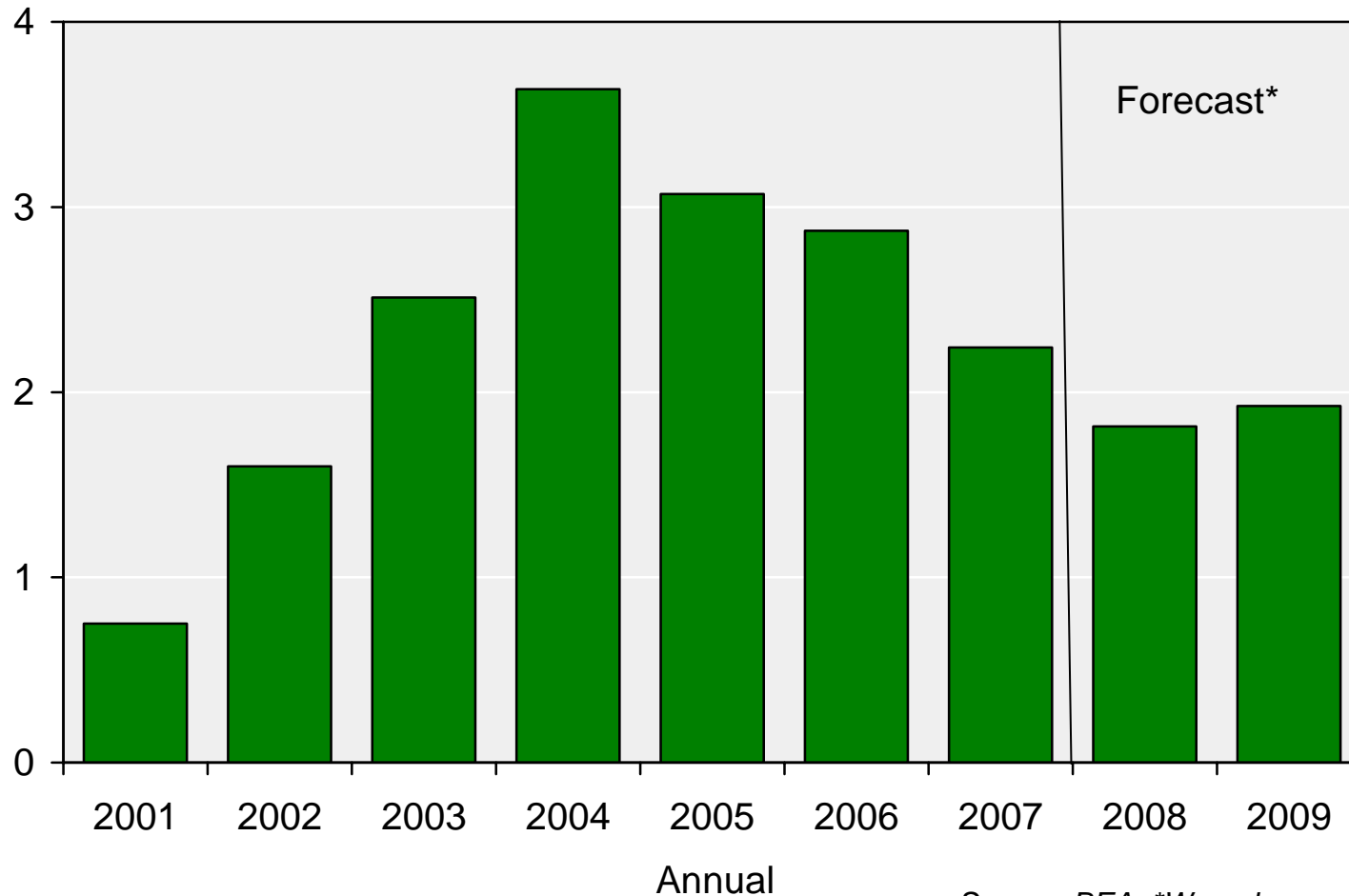
Slowing growth (without recession)

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Growth in U.S. Real GDP

Percent Change



AMDGA01A

Source: BEA, *Weyerhaeuser

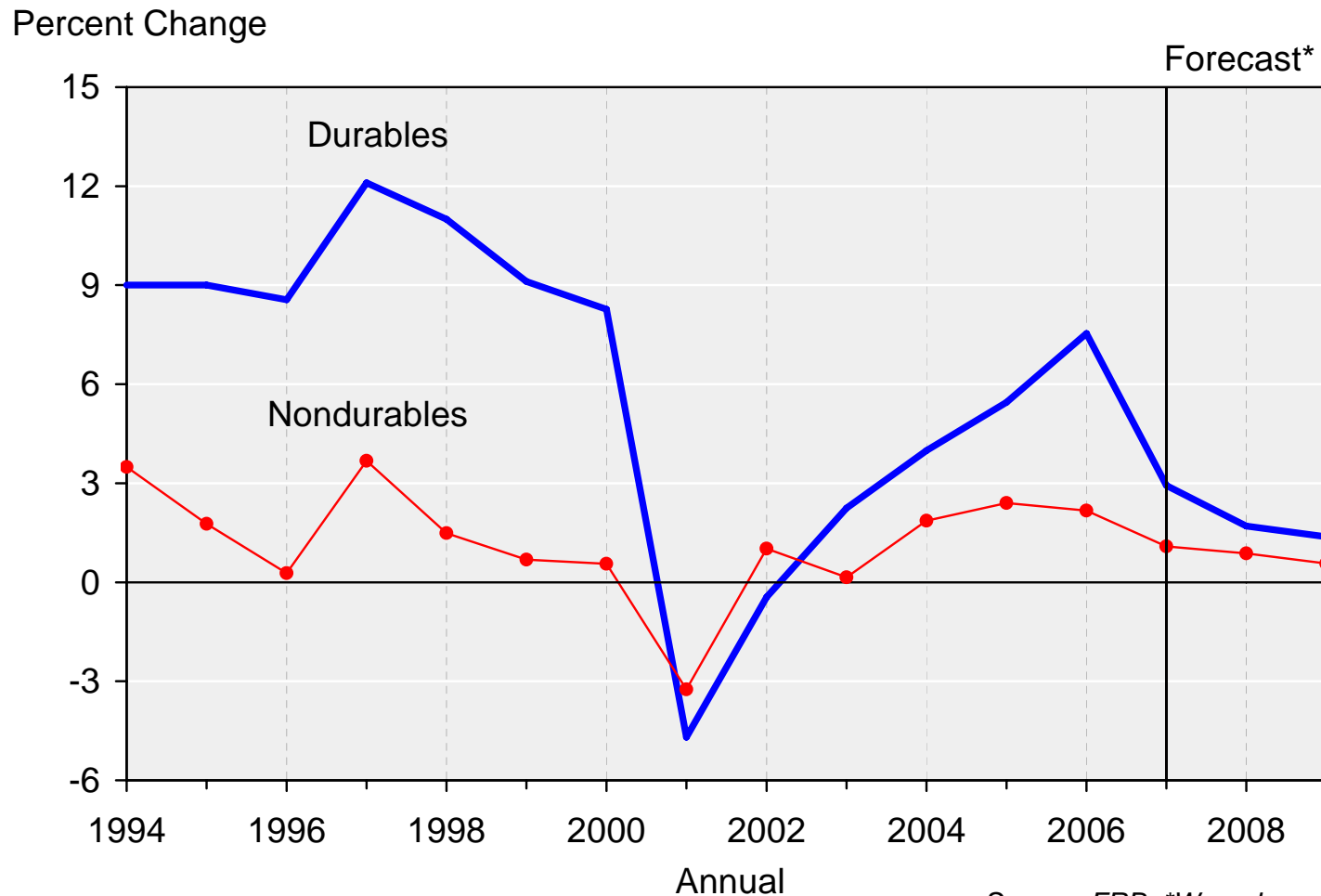
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Sluggish growth through 2009

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Growth in U.S. Manufacturing Industrial Production



AMDIP07A

Source: FRB, *Weyerhaeuser

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Summary of Key Messages

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- Housing inventory correction underway
- Collapse in construction activity affects softwood lumber
 - Shrinking demand forcing curtailment as prices remain below cost support levels
 - Available lumber for non construction uses impacted by shut downs
 - Hardwoods also impacted by housing related demand
- Pallet demand slowing with GDP and industrial production
- Further downside risk to demand in case of recession