

Changes in Traditional Forest Product Markets

Peter J. Ince & Henry Spelter
US Forest Products Laboratory
Madison, Wisconsin



2008 Timber Measurements Society Meeting

Traditional Forest Product Markets:

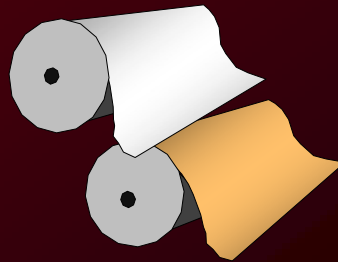
- **Lumber & Wood Panels**

(OSB logs, Chip-n-saw, Saw Logs, Veneer Logs)

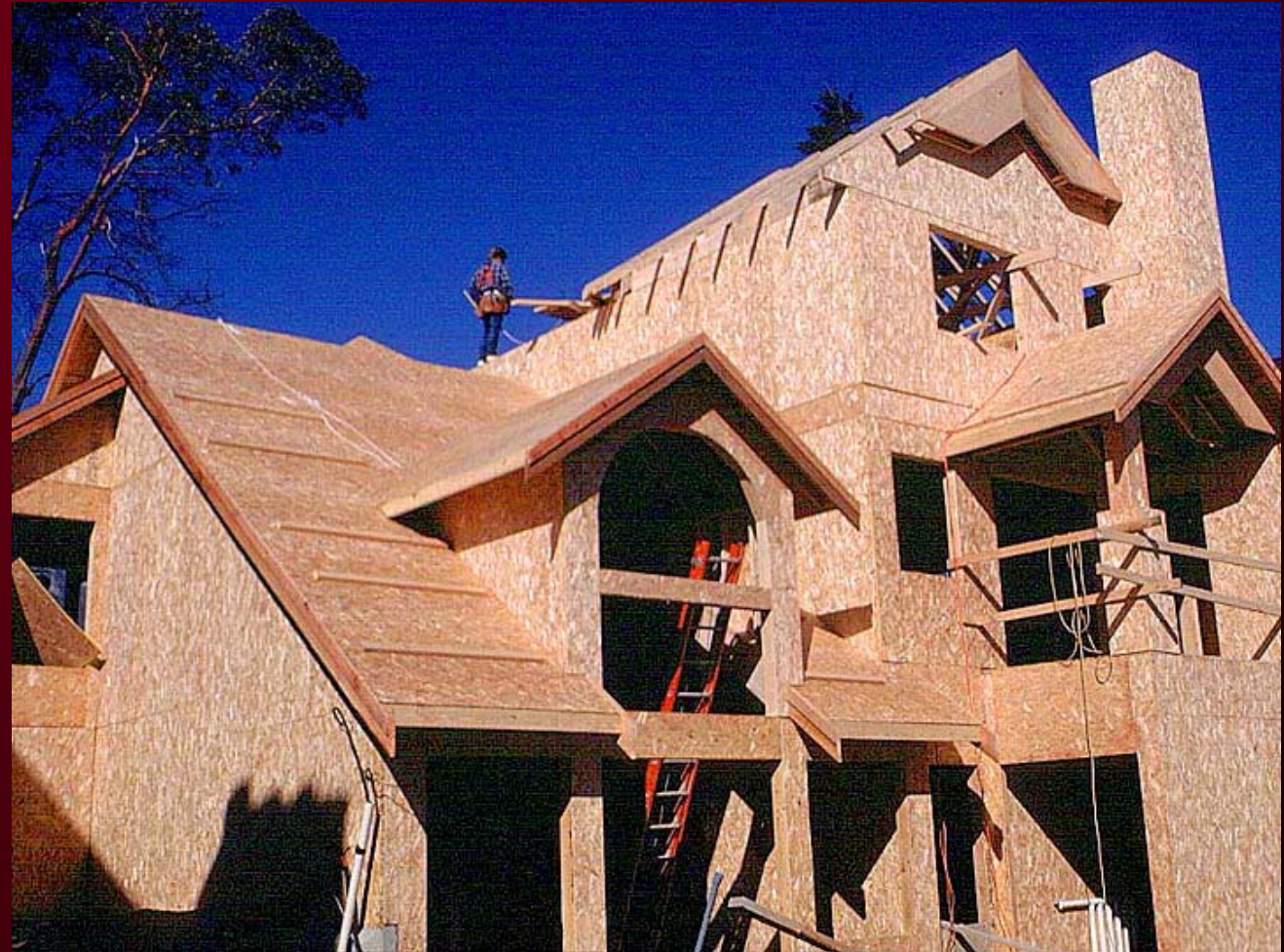
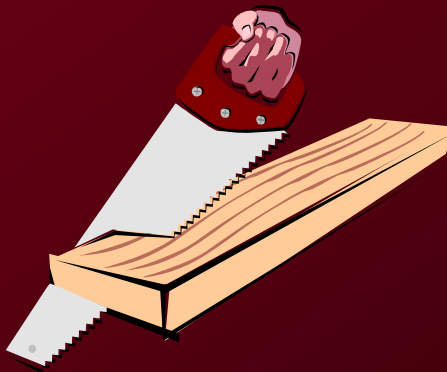


- **Paper, Paperboard & Wood Pulp**

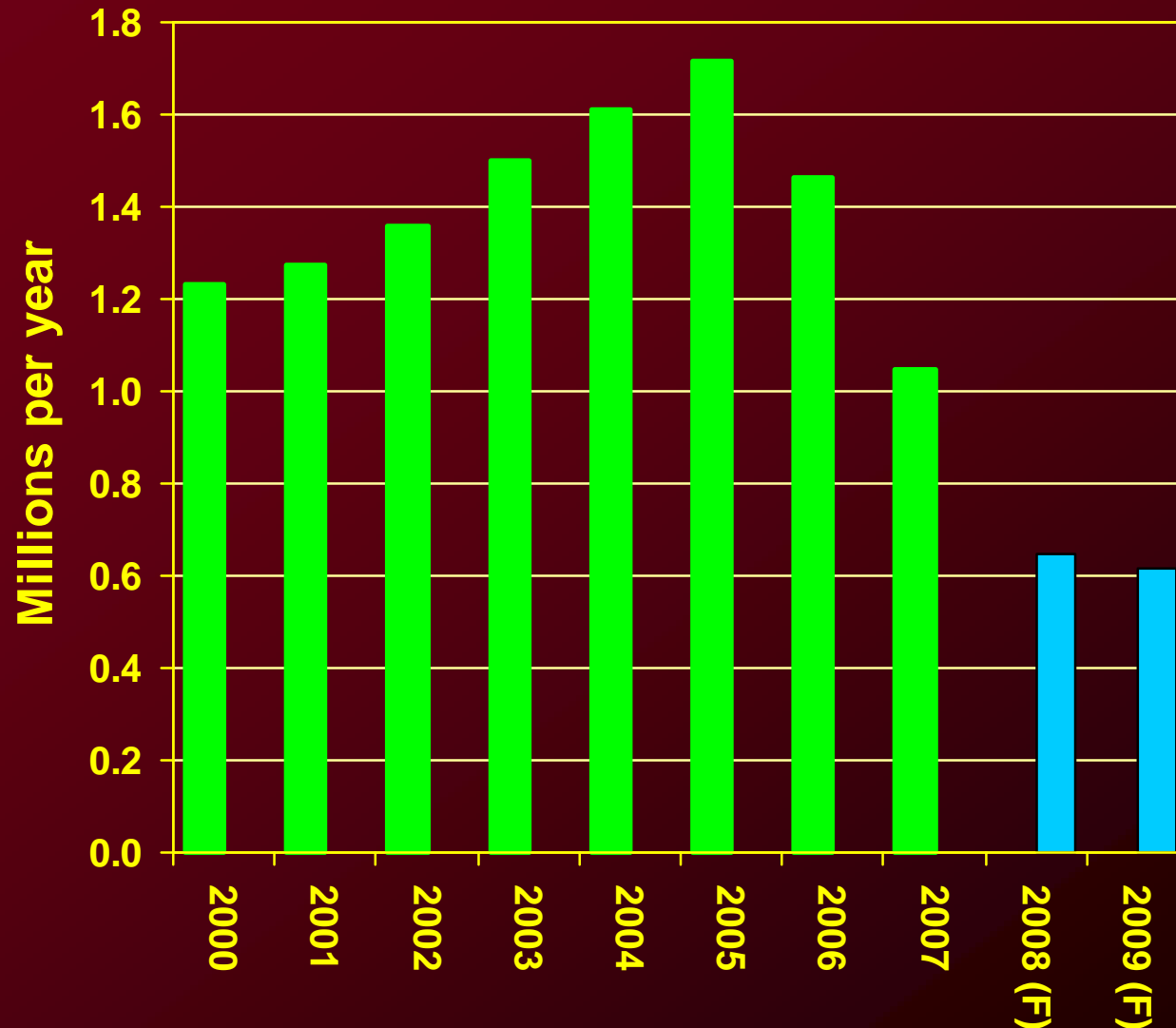
(Pulp logs, Wood Chips)



Wood panel & lumber usage is tied to housing construction, so their markets are impacted by changes in housing demand . . .



Since 2005, the big change in lumber and wood panel demand was an end to the housing boom with a collapse in U.S. housing construction . . .



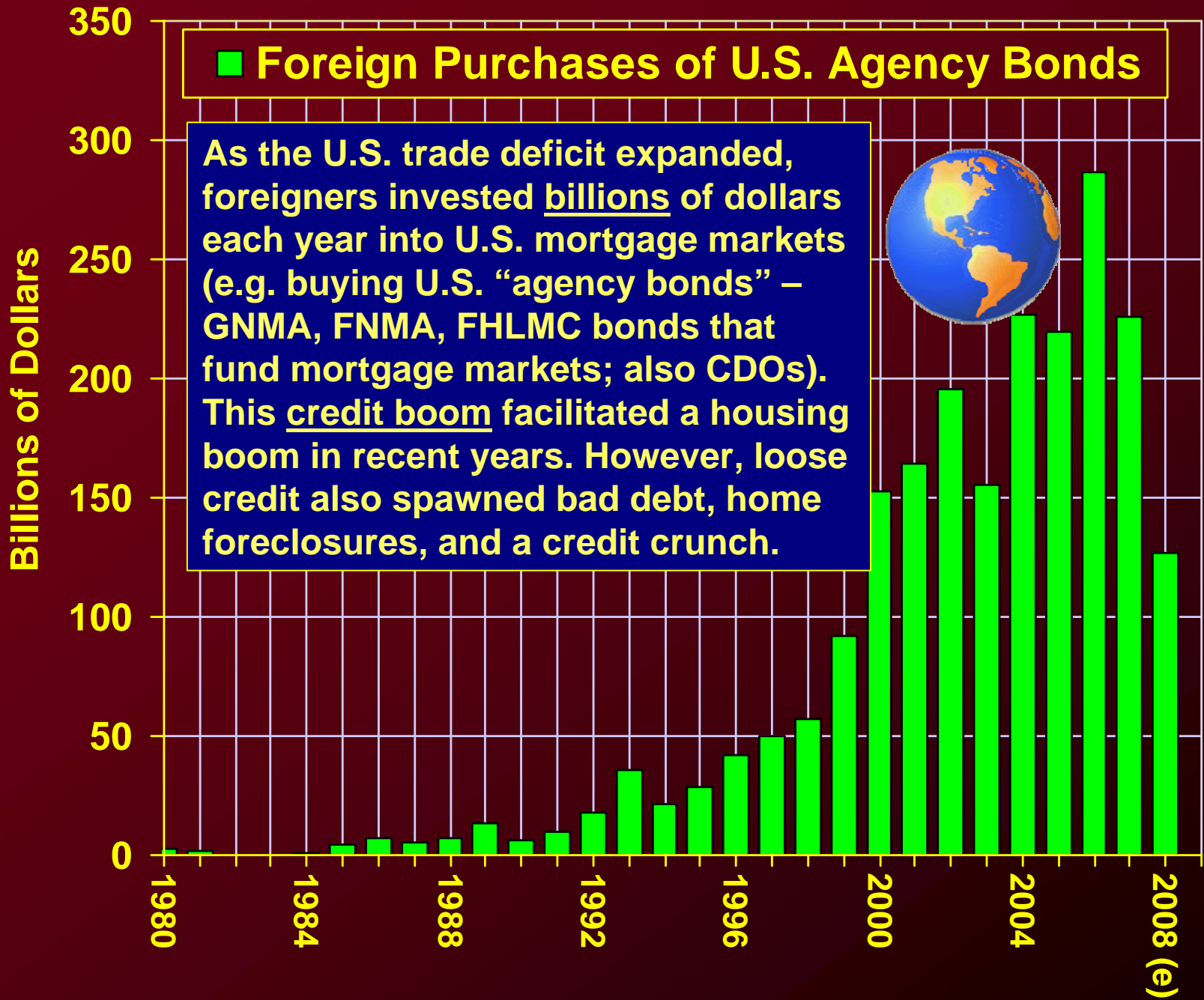
Single-family housing unit construction starts/year



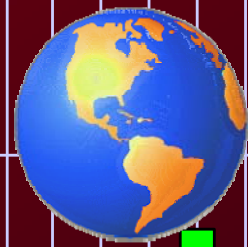
Sources:
Data - U.S. Census Bureau
2008 Forecast – H Spelter

Strong global forces were behind the recent boom and bust in U.S. housing demand.



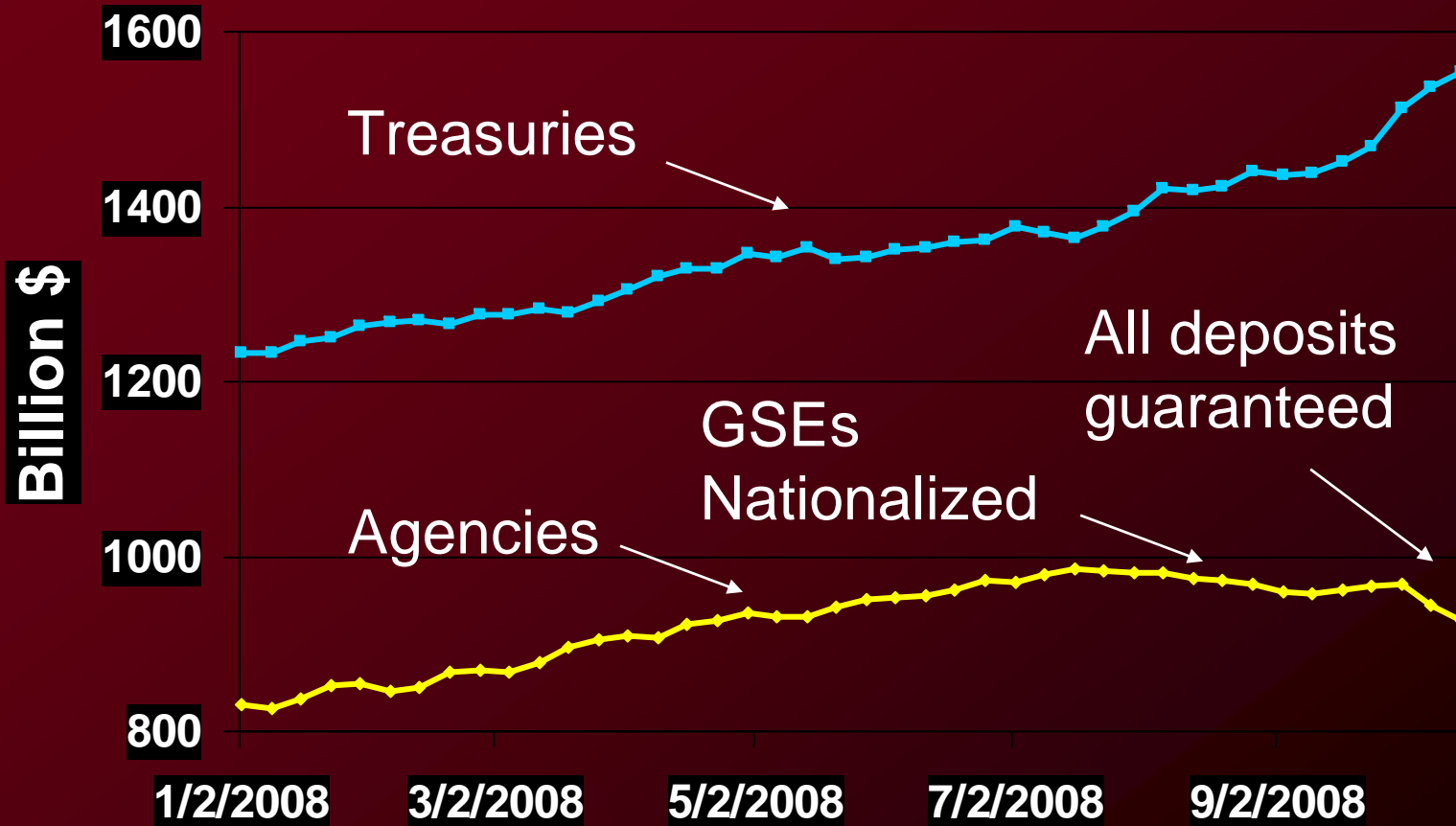


As the U.S. trade deficit expanded, foreigners invested billions of dollars each year into U.S. mortgage markets (e.g. buying U.S. “agency bonds” – GNMA, FNMA, FHLMC bonds that fund mortgage markets; also CDOs). This credit boom facilitated a housing boom in recent years. However, loose credit also spawned bad debt, home foreclosures, and a credit crunch.



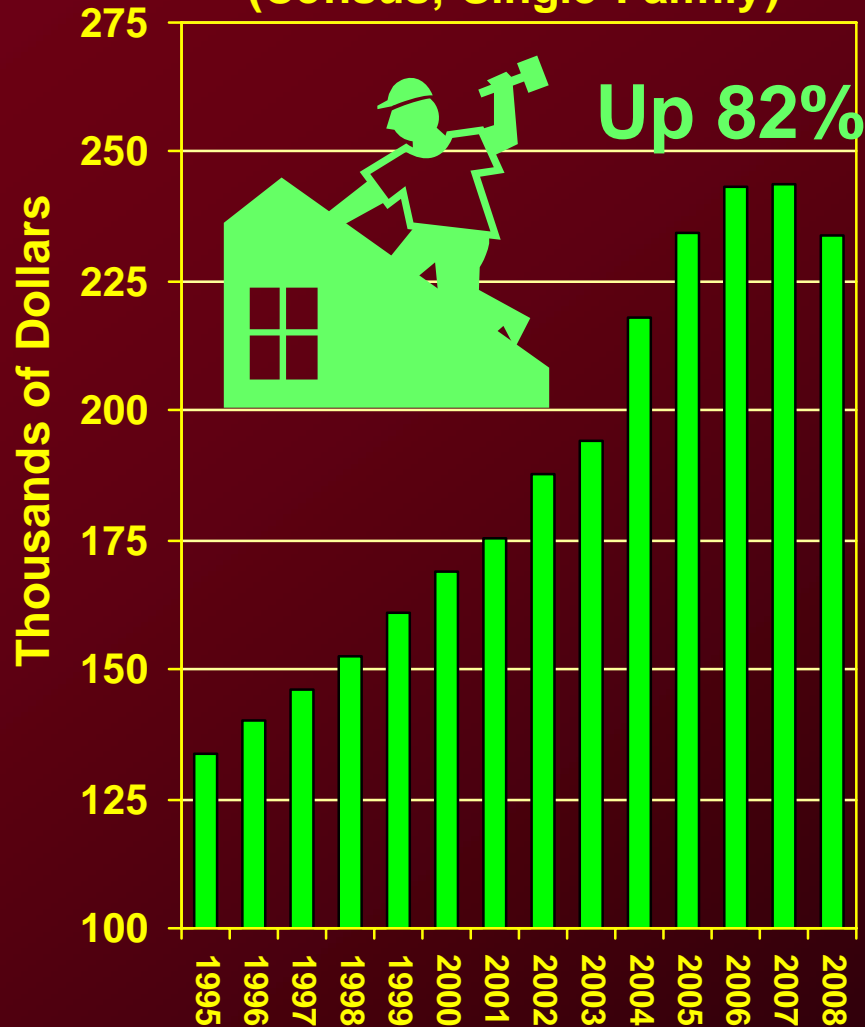
Source: U.S. Dept. of the Treasury

Foreign Central Banks Began to Dump Agency Bonds in Favor of U.S. Treasuries

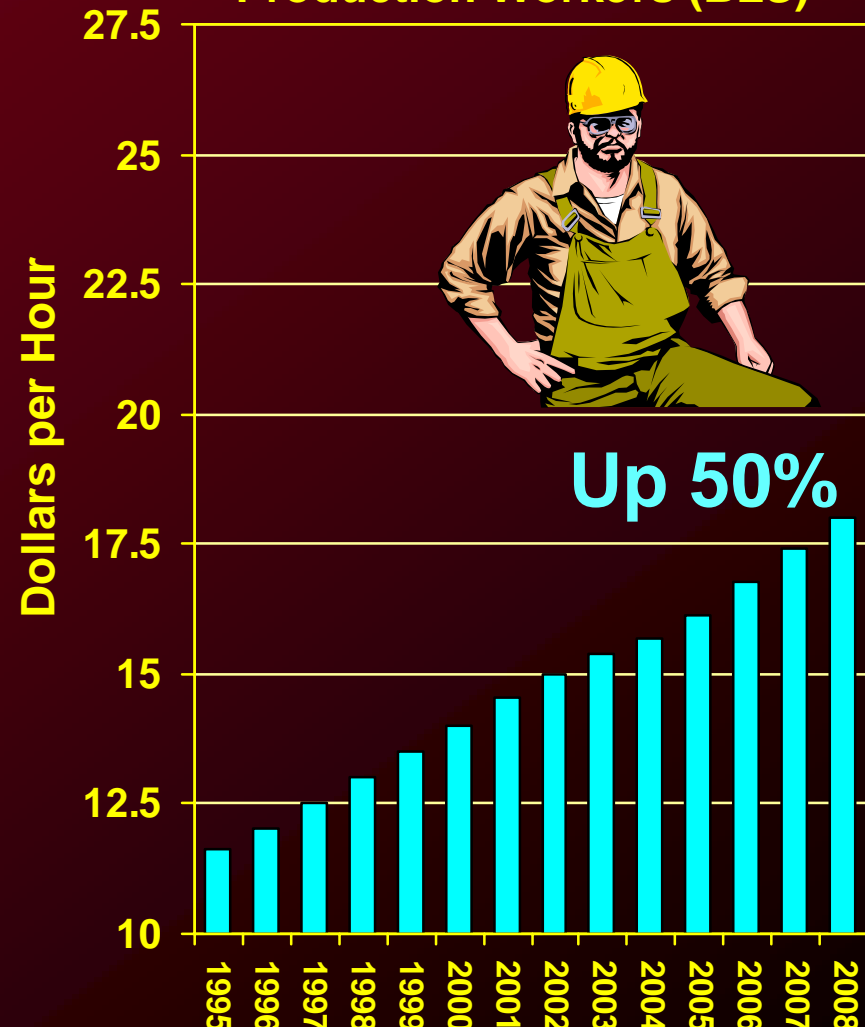


Booming credit, low interest rates, and high LTV (loan-to-value) mortgages facilitated booming home prices, but U.S. average wage gains did not keep up with new home prices, so home affordability became an issue, especially after interest rates bottomed out in '05.

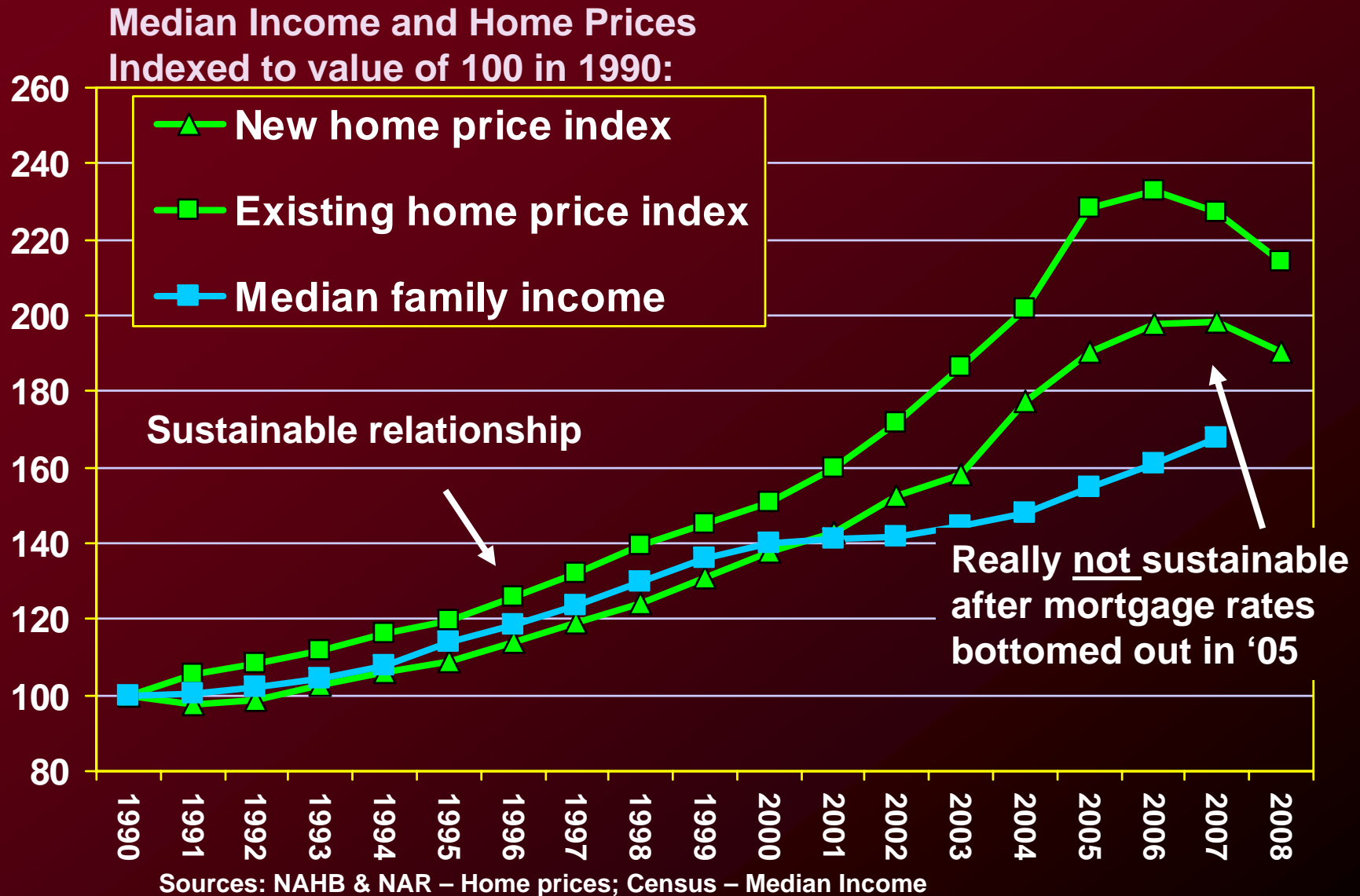
Median New Home Price
(Census; Single-Family)



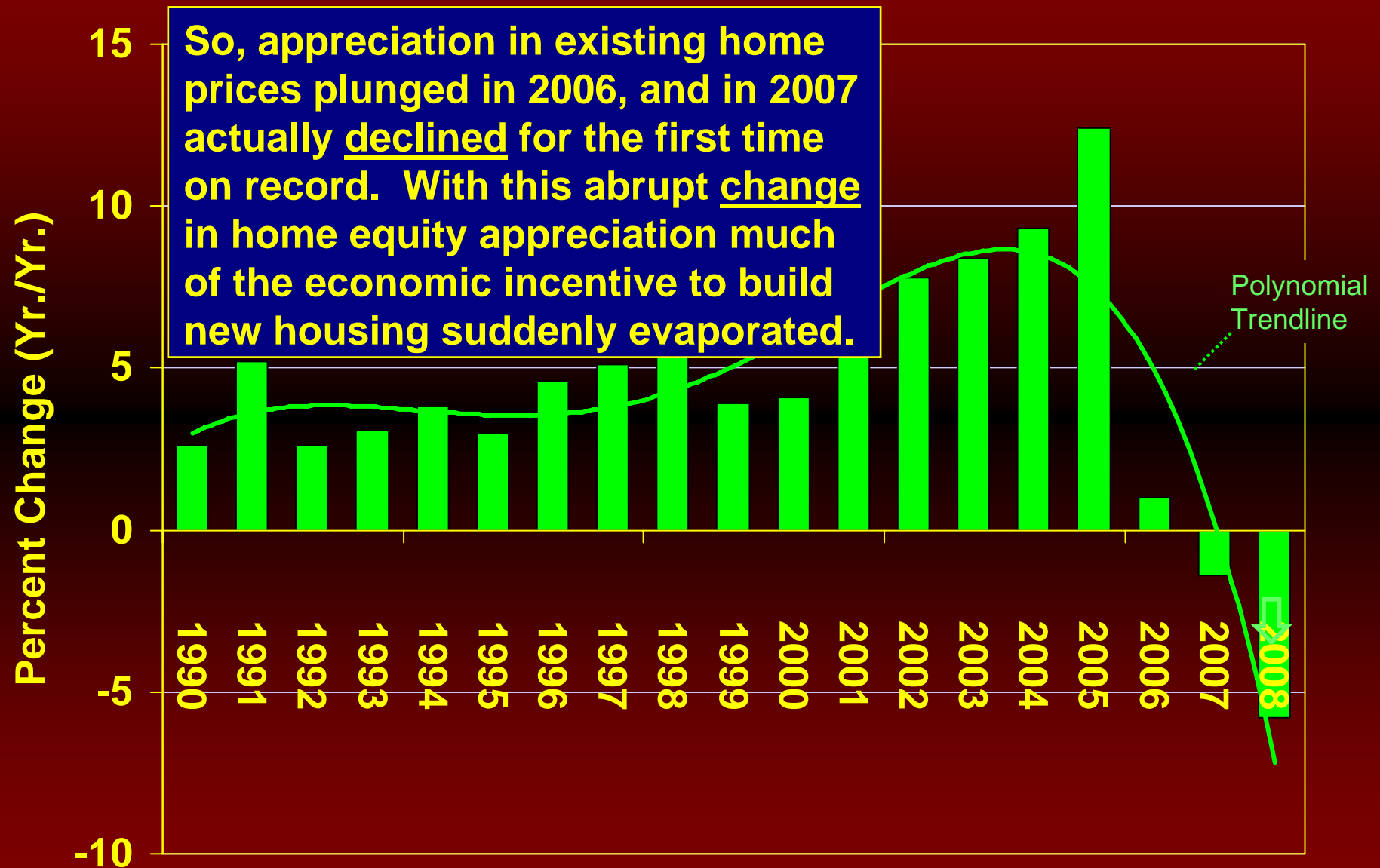
U.S. Average Wage of
Production Workers (BLS)



To maintain affordability, income needs to keep pace with home prices or else home price appreciation is not sustainable (unless interest rates keep declining) . . .



Annual Change in Existing Home Sales Price



**The credit boom drove home prices,
but wages did not keep pace.**



**Without the lure of home value appreciation
(equity gains) new home sales collapsed in
2006-2008. The housing boom ended, and
home foreclosures rose as equity declined.**



Sources: U.S. Census Bureau, Seasonally Adjusted Annual Rate (SAAR), by month

Monthly New Home Sales - Long History

Key points about new home sales history:

- Latest boom/bust is the biggest on record
- The recent boom was driven by a credit boom
- It was distinct from “baby boom” era ('70s-'80s)



- Past notable declines featured rising interest rates and rising unemployment (current interest rates are near all-time lows)
- The current collapse features declining home value appreciation

Source: Lawrence Yun, NAR Research; NAHB data (new single-family home sales)

What experts have said about how long the nation's housing doldrums will continue:

“ . . . for a long time ” (CNN, March 11, 2008)



Edward Leamer, Professor, UCLA
Author of “Housing Is the Business Cycle”

“ . . . the housing correction, what's going on in the housing market, this is not over, it's going to take longer ”



Hank Paulson, U.S. Treasury Secretary
(YouTube, February 12, 2008)

What experts have said about how long the nation's housing doldrums will continue:

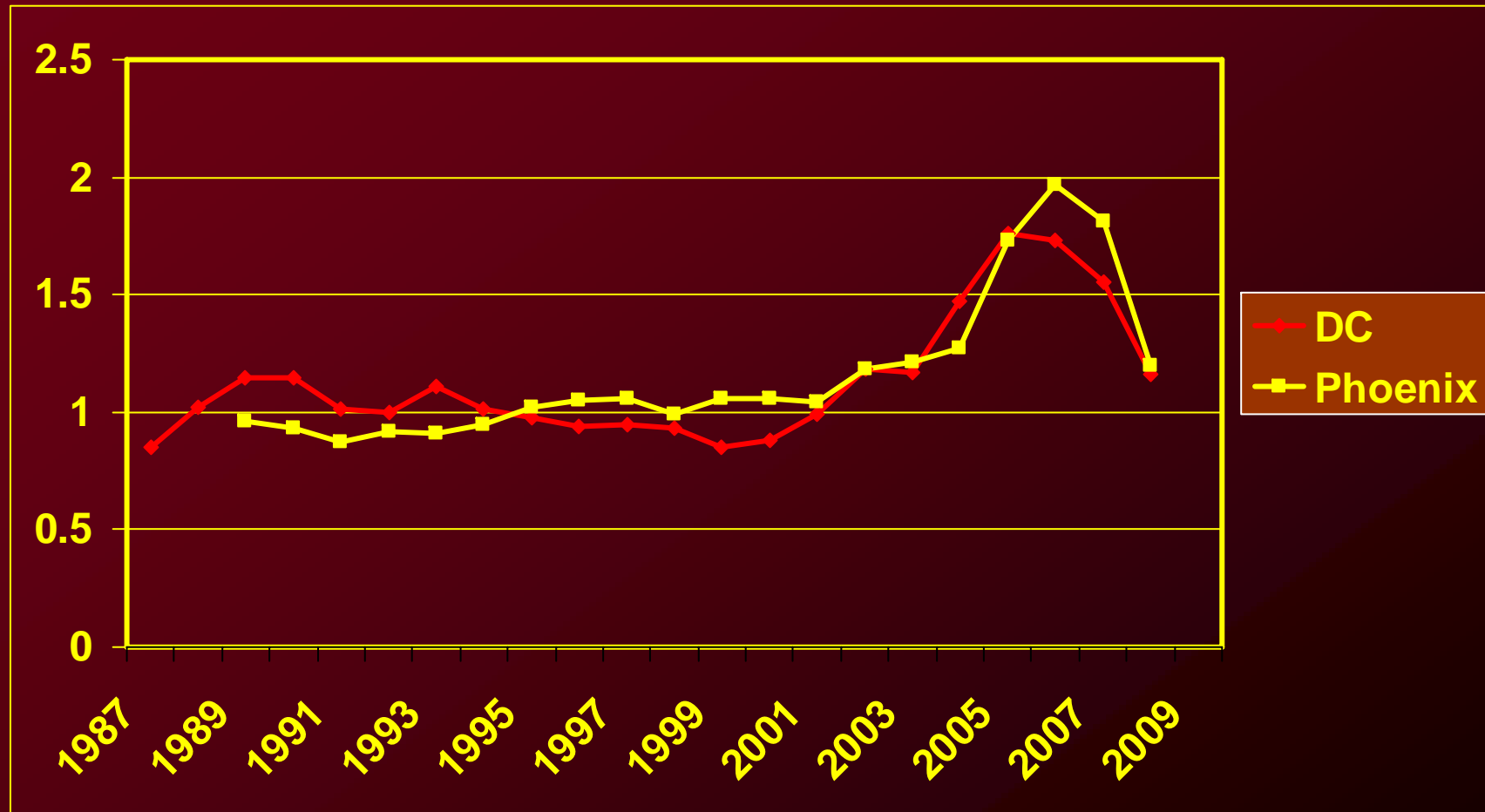
“ . . . Broader economic recovery will not happen right away. The housing market continues to be a primary source of weakness . . . ”

(Speech to the Economic Club of New York, Oct 15, 2008)

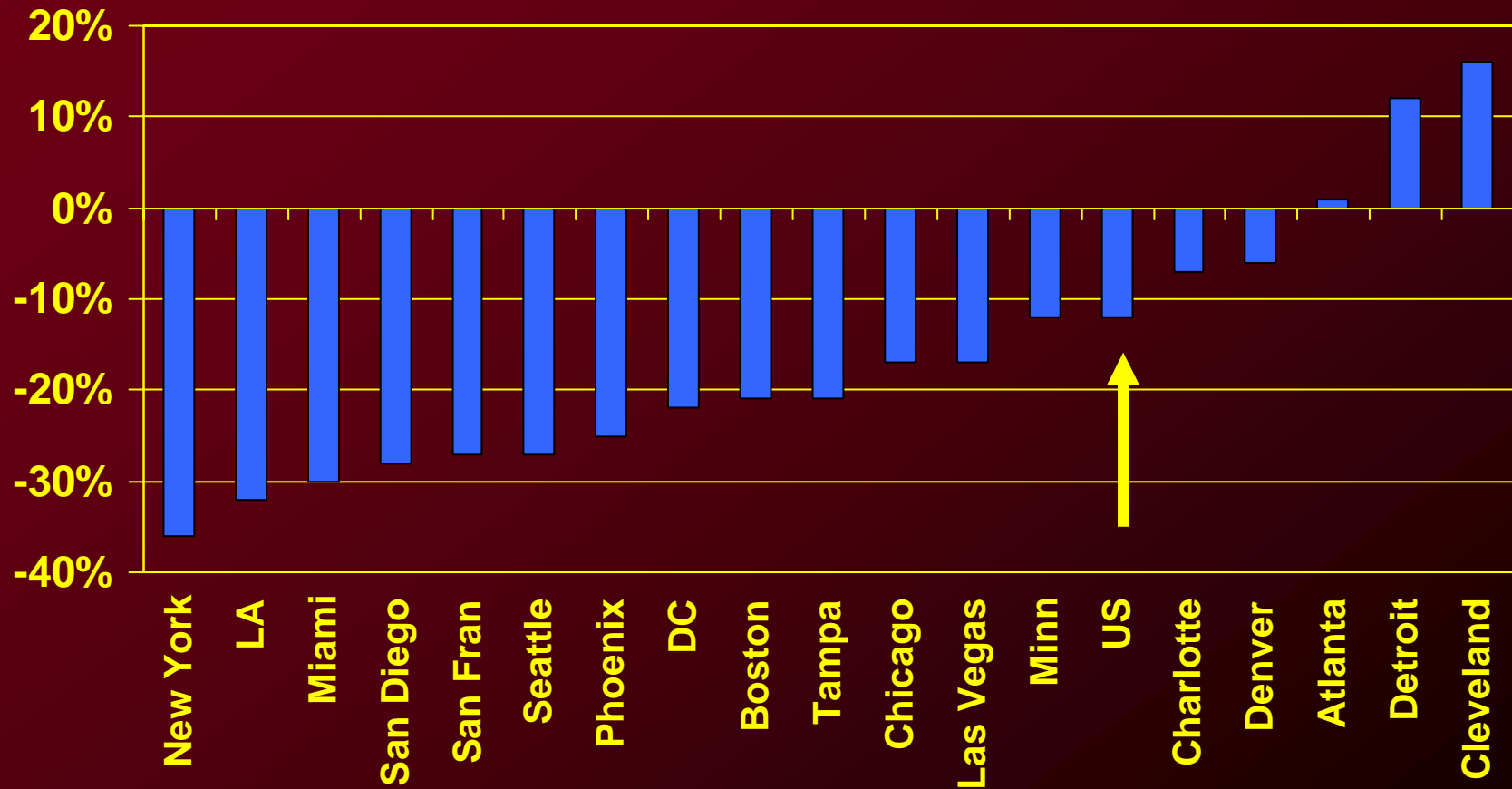
Ben Bernanke, Chairman of the Federal Reserve.



Ratios of Home Prices to Median Incomes

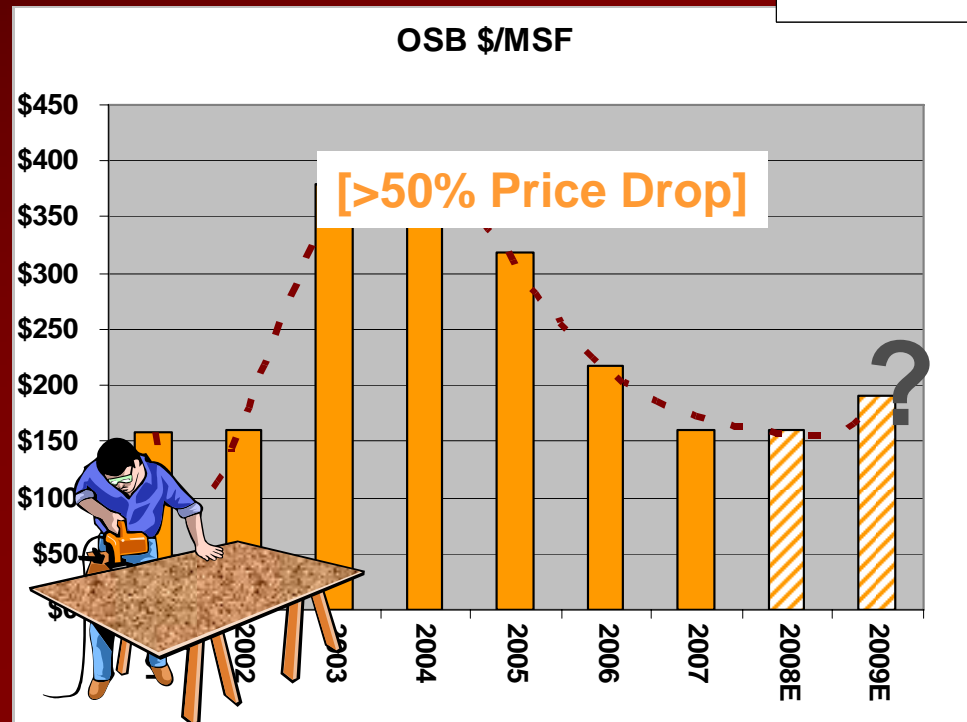
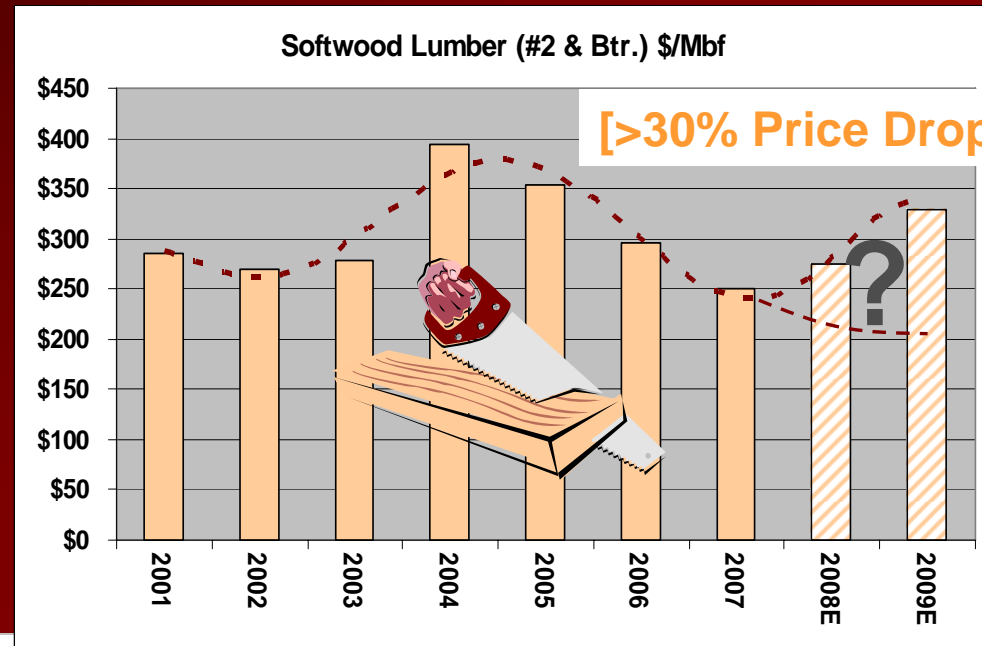


Percentage Changes Needed to Align Home Price and Median Incomes



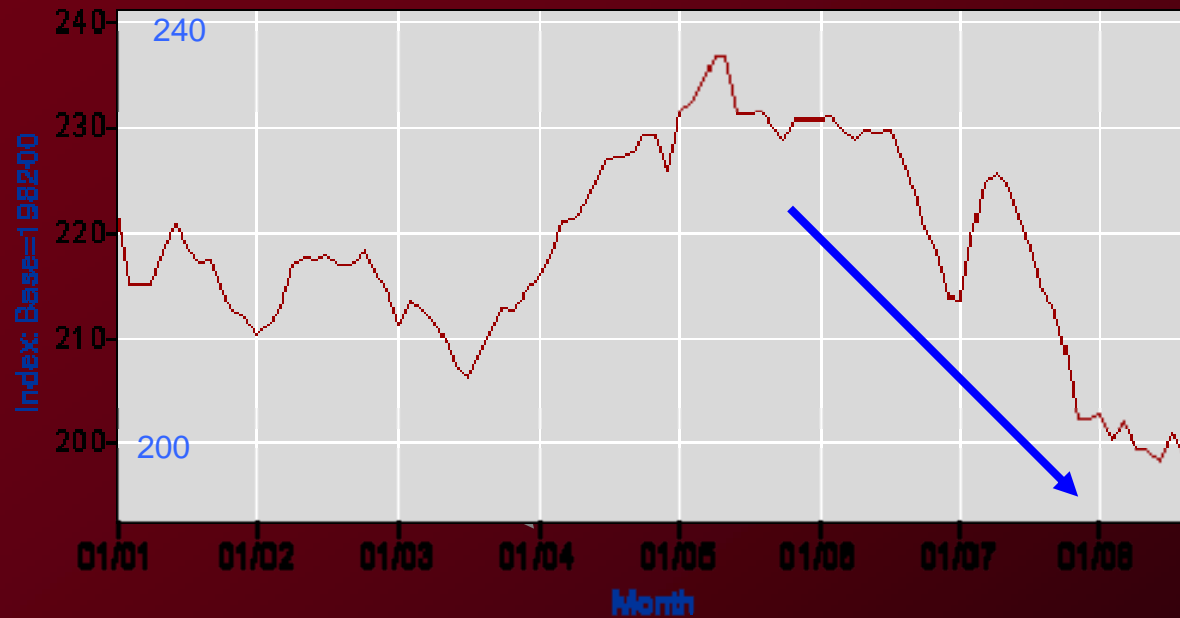
Market Prices

The collapse of the housing boom since 2005 heralded major changes for traditional U.S. forest product markets, as illustrated here by change in product prices.



Any expectation of recovery hinges upon uncertain recovery (?) in housing demand.

U.S. Log Price Trends (2001 – 2008) . . .



Log prices followed lumber and panel prices, pushing to recent peak levels in 2004-2005, and falling to lower levels with the collapse of housing construction activity in 2006-2007. However, log prices have not dropped as much as lumber prices – some suggest this may be a supply effect of declining forest industry timberland ownership.

Sources: BLS Producer Price Indexes for Logs & Bolts (Series WPU085101 and WPU085102)

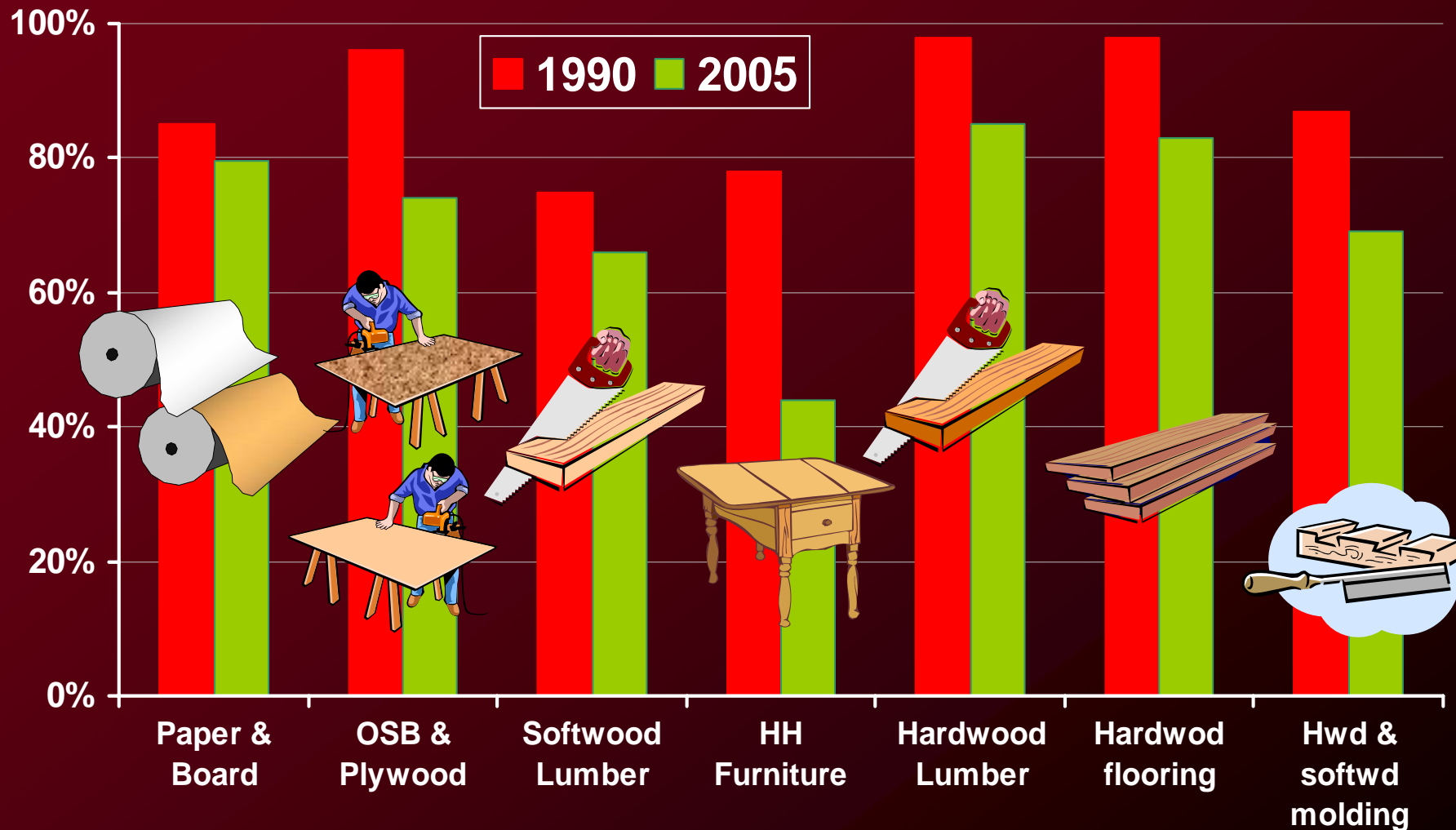
*Another
Global
Change . . .*



↓ \$ (lower value U.S. dollar)

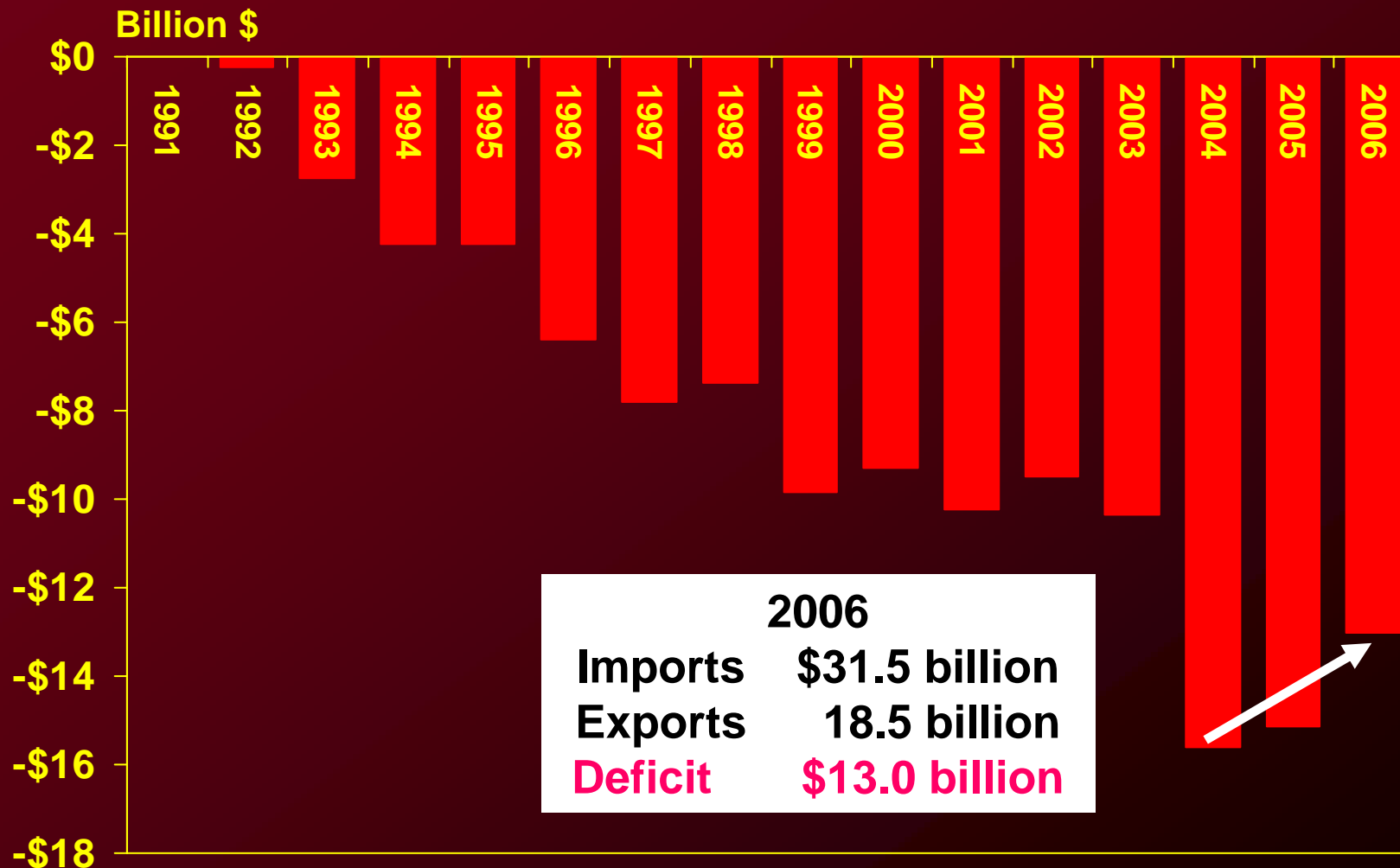
In addition to the credit boom and weak housing market, wood imports are beginning to change also in response to another important economic factor, the lower exchange value of U.S. dollar.

Declines in domestically-produced shares of U.S. consumption:
From 1990 to 2005, U.S. producers lost market share to imports in all wood products, especially labor-intensive products like plywood, furniture, and millwork. The dollar was strong for much of that period.



Sources: Shipments : Dept Commerce, Bureau Census , ASM; Imports & Exports : FAS; Paper & Board: AF&PA

U.S. Forest Products Trade Imbalance: The U.S. forest products trade balance deteriorated with rising imports since the early 90s, but improved in the past several years, with a weak U.S. dollar (and weak housing) . . .



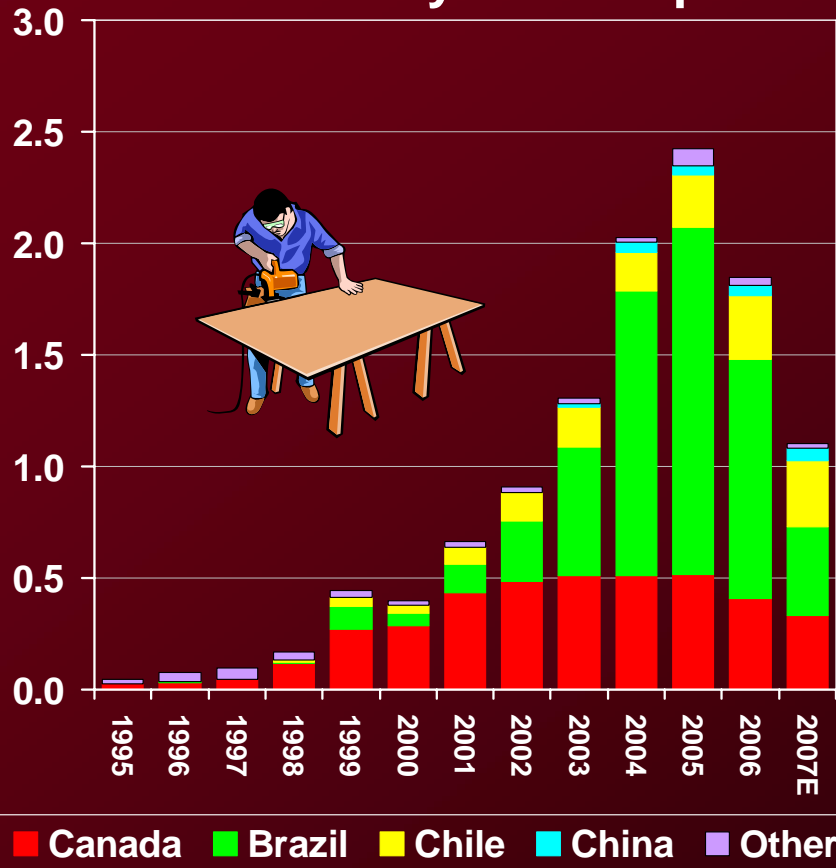
Source: FAOSTAT – includes Round wood, wood based panels, pulp, paper & paperboard (from Al Schuler, USFS)

Plywood and OSB imports have started to taper off

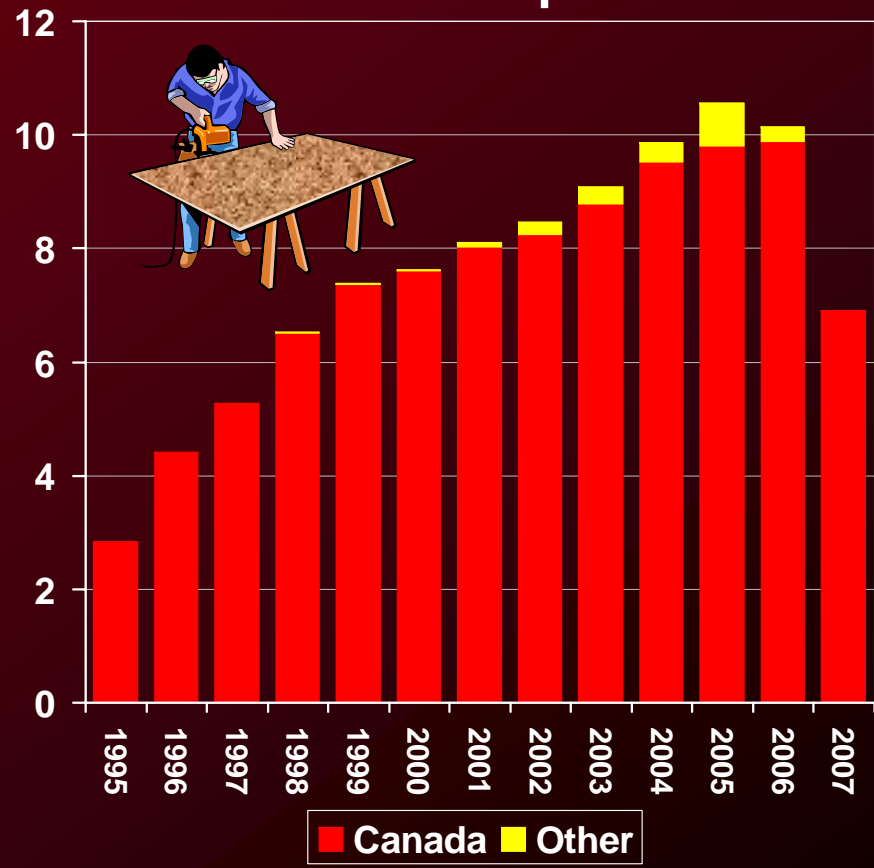
... (probably due to weak housing and maybe the weak dollar)

Billion Square Feet (3/8")

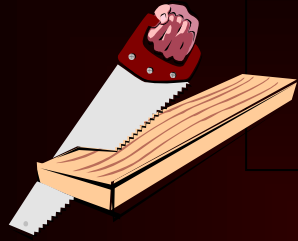
Softwood Plywood Imports



OSB Imports



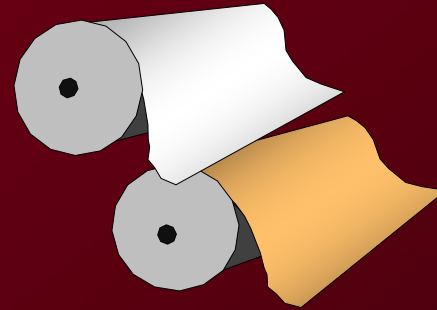
Source: APA, The Engineered Wood Association



Summary points about change in lumber and wood panel markets



1. U.S. lumber and wood panel demands follow housing construction for obvious reasons (homes and furnishings are made of wood).
2. The U.S. housing market has experienced a collapse in demand, following the recent credit boom and peaking of home prices.
3. Since 2005 the collapse in housing has changed the market situation with lower demand and prices for lumber and wood panel products.
4. An upturn in U.S. markets for lumber and wood panels hinges upon an upturn in the housing market, the timing of which remains uncertain.
5. Although U.S. demands were crippled by the housing collapse, the weaker U.S. dollar has helped improve our wood trade balance.



The End

