



# **Economic and Industry Outlook**

**Federal Reserve Bank of Chicago  
Automotive Outlook Symposium**

**June 6, 2008**

**Emily Kolinski Morris  
Senior Economist for the Americas**

# Topics Today

---

- **Recent Economic Developments**
- **U.S. Vehicle Buying Conditions**
- **Auto Industry Revenue and Segmentation**



# Recent Developments

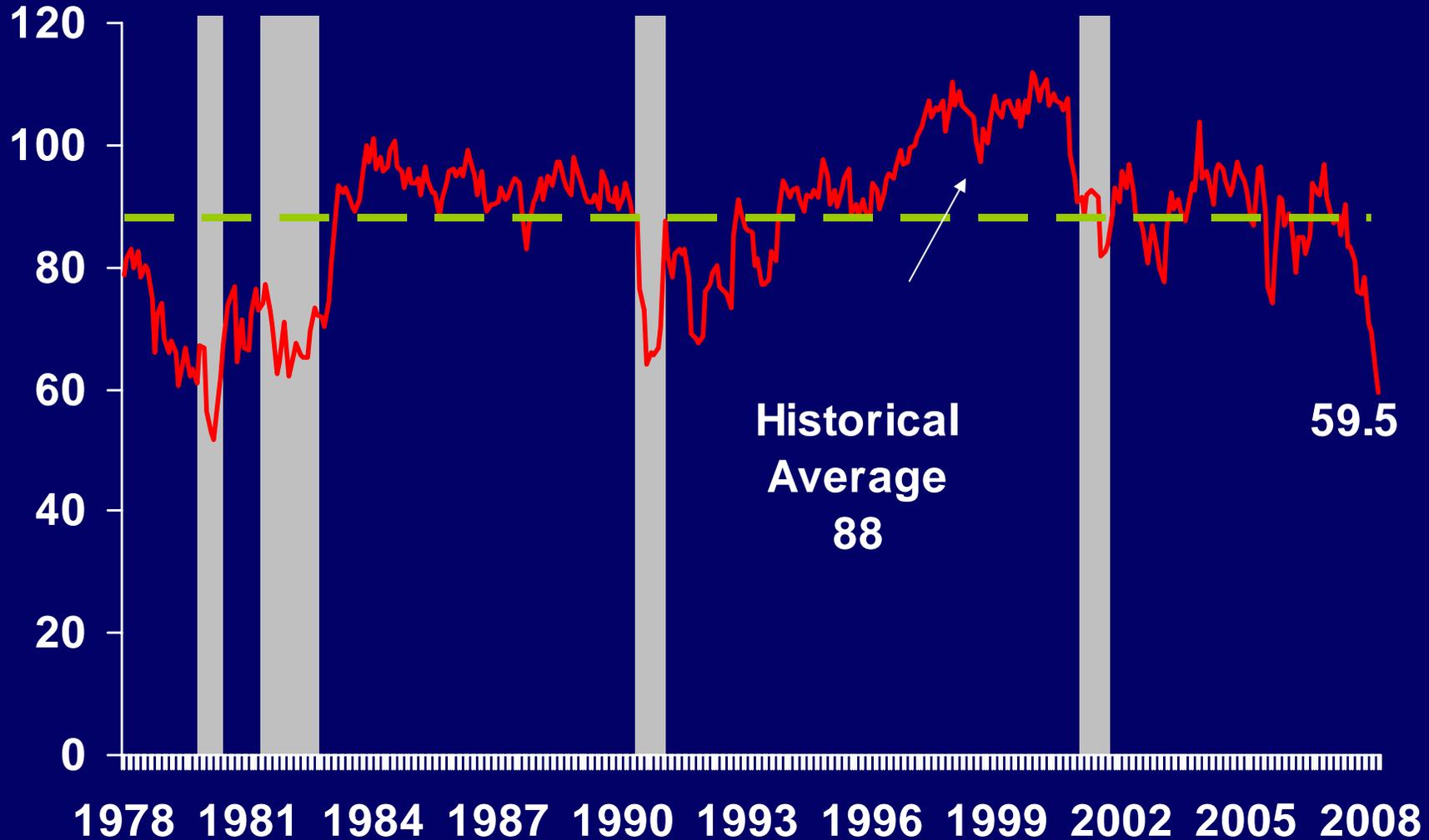
---

- **Economic environment remains challenging**
- **Active policy response on both fiscal and monetary fronts**
- **Oil and other commodity prices remain elevated despite slower U.S. demand growth**
- **Light vehicle sales have averaged 15.0 million units (SAAR) after sales of 16.1 million in 2007, with pronounced shifts in segmentation**



# U.S. Consumer Sentiment Index

Preliminary May reading is lowest since 1980

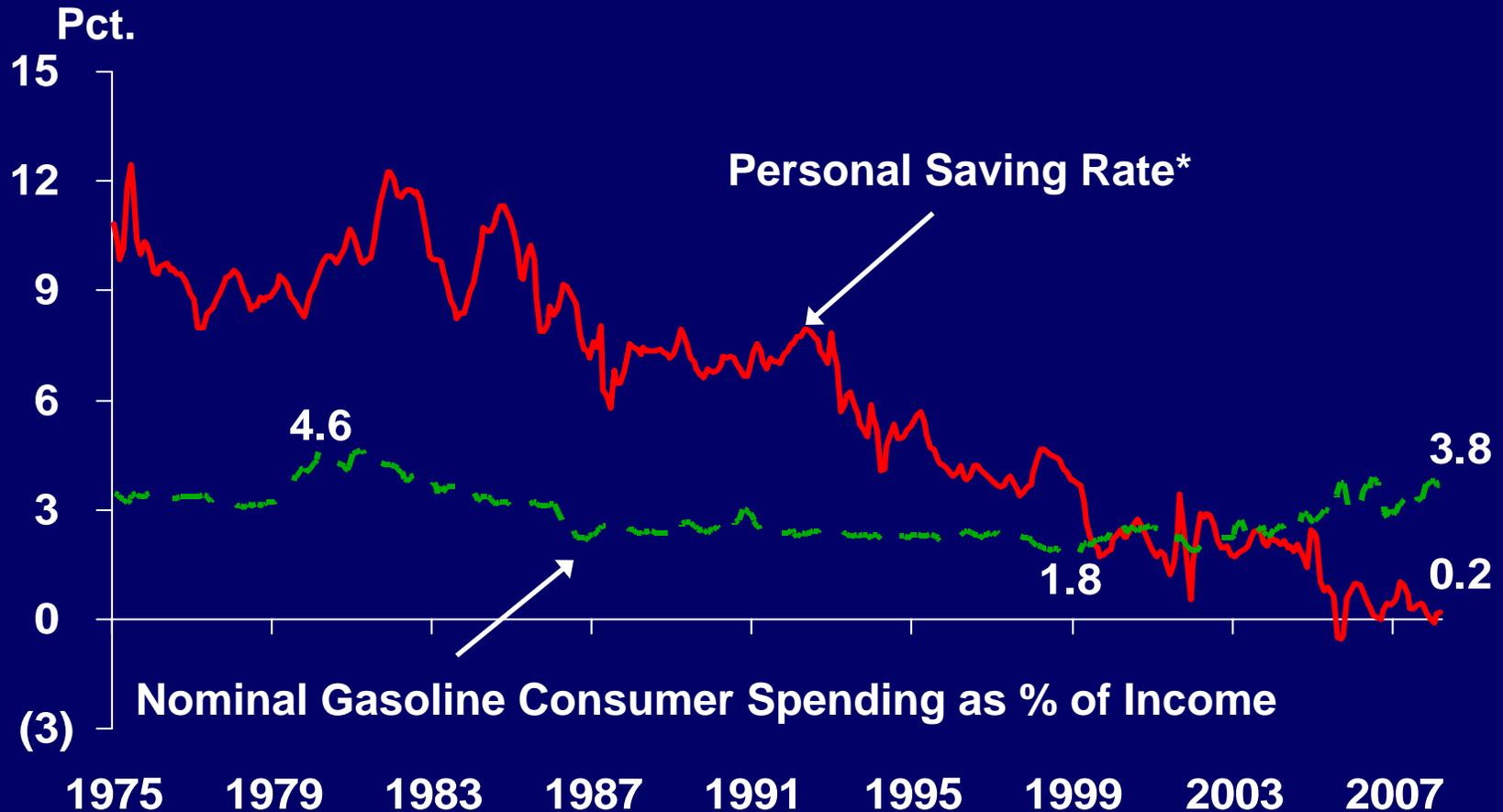


Gray Bars Indicate Recessions



# U.S. Consumer Spending on Gasoline

Gas prices represent a “tax” on consumer disposable income of over \$200 billion since 2004

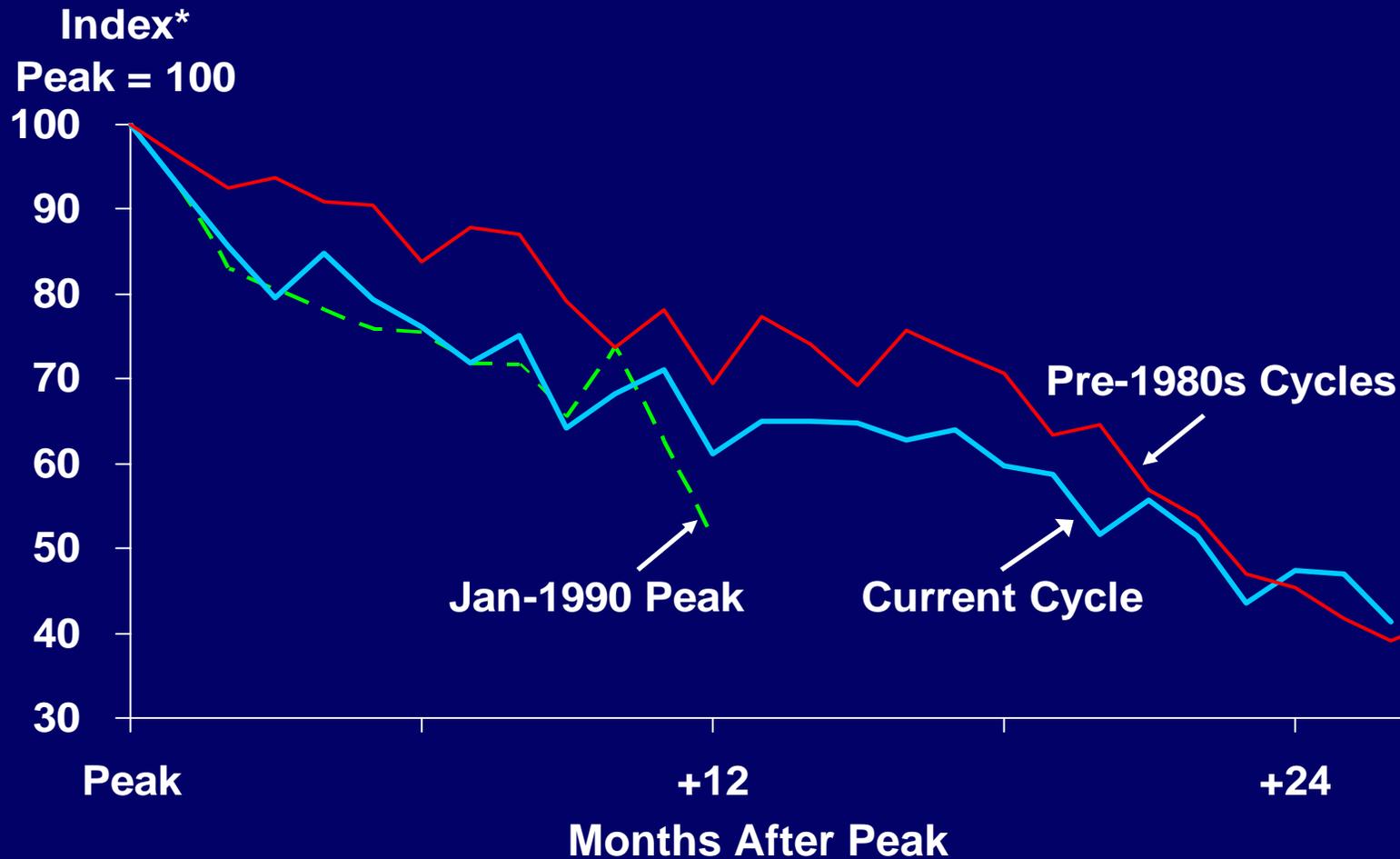


\* Based on 3-month moving average



# Current and Prior Housing Cycles in U.S.

The adjustment to new home construction may be nearing bottom



\* Index based on total U.S. housing starts



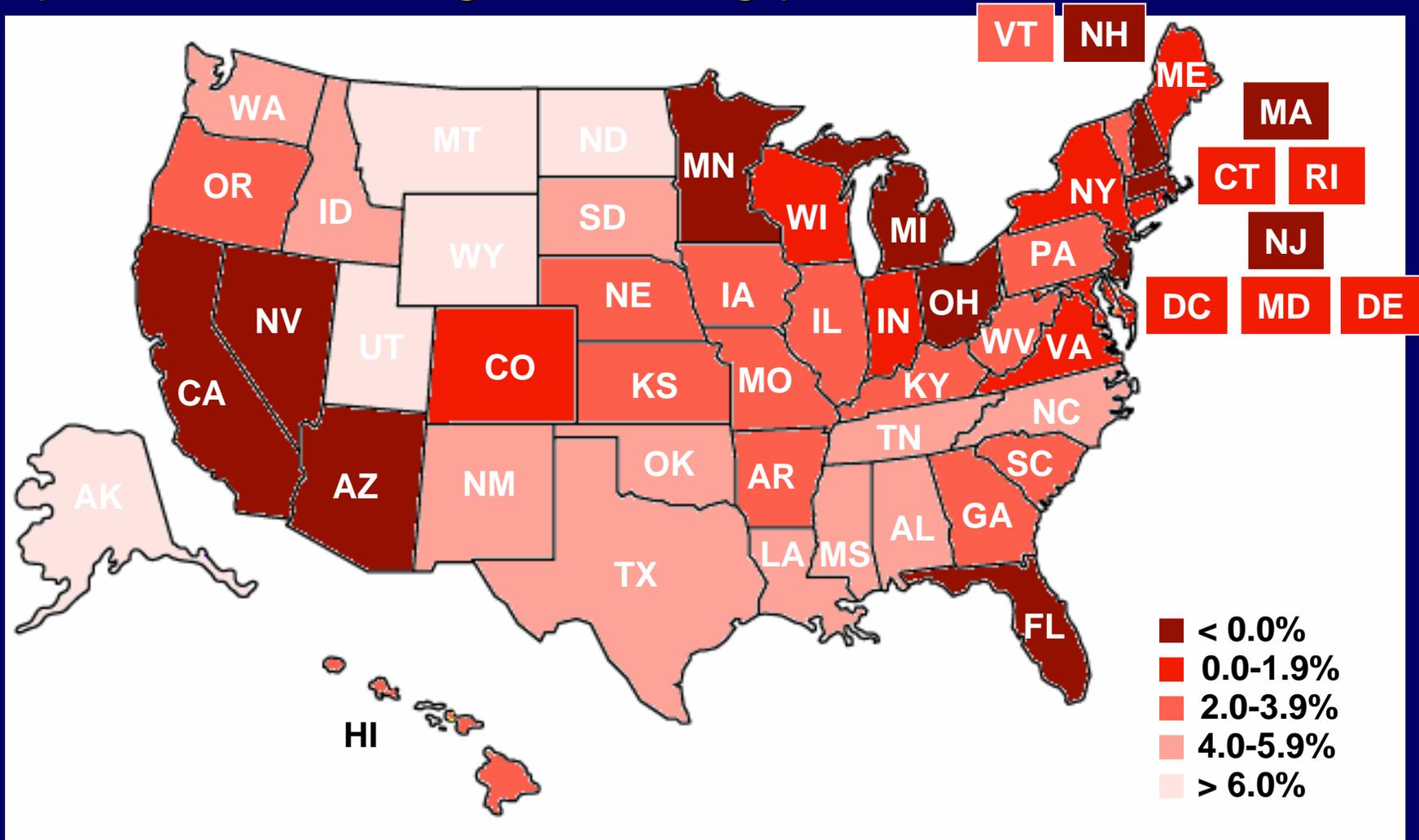
# Home Inventories

Stock of homes for sale suggests prices still have to further to fall



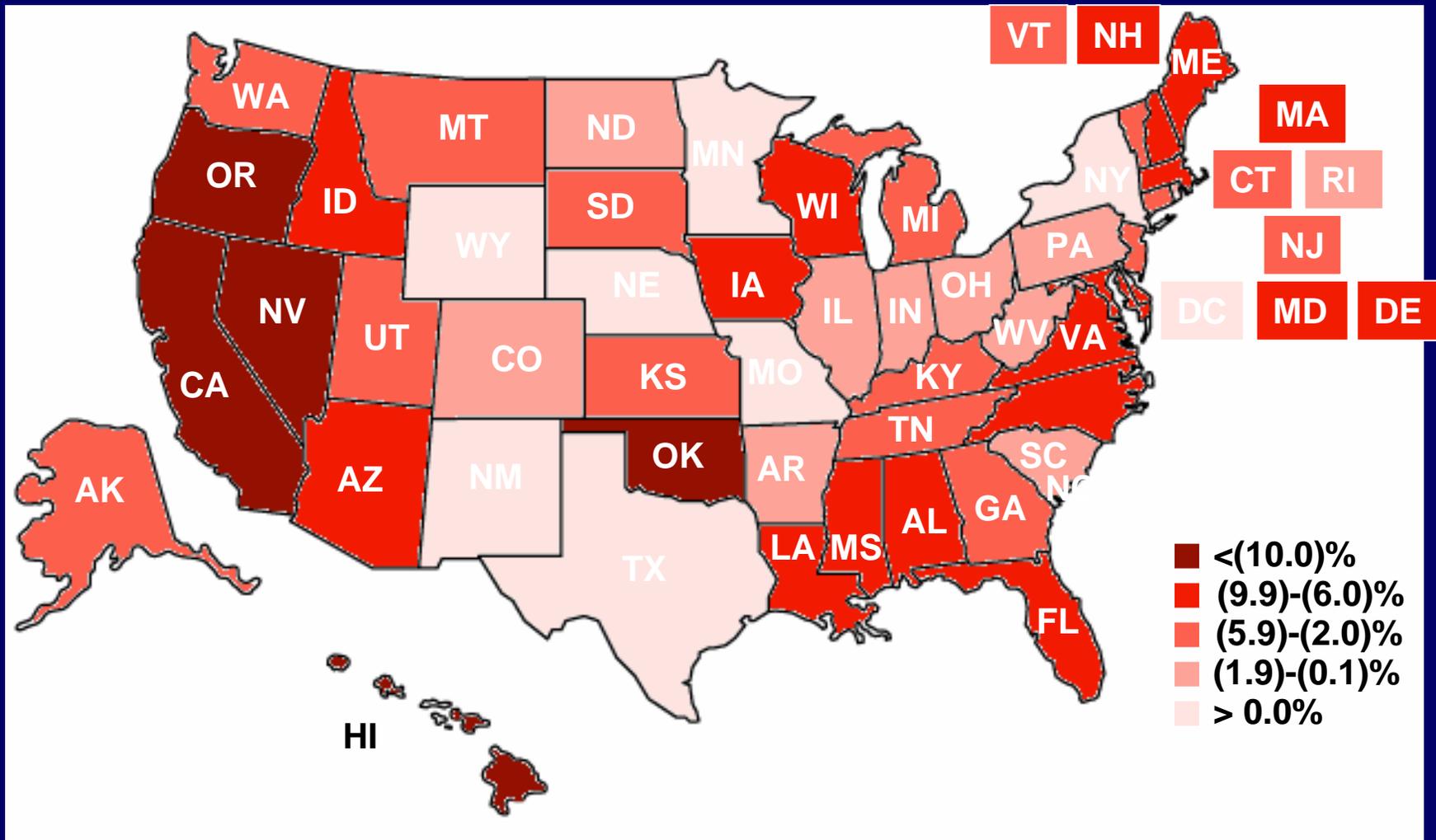
# OFHEO House Prices

(4Q 2007 Percent Change Over Year Ago)



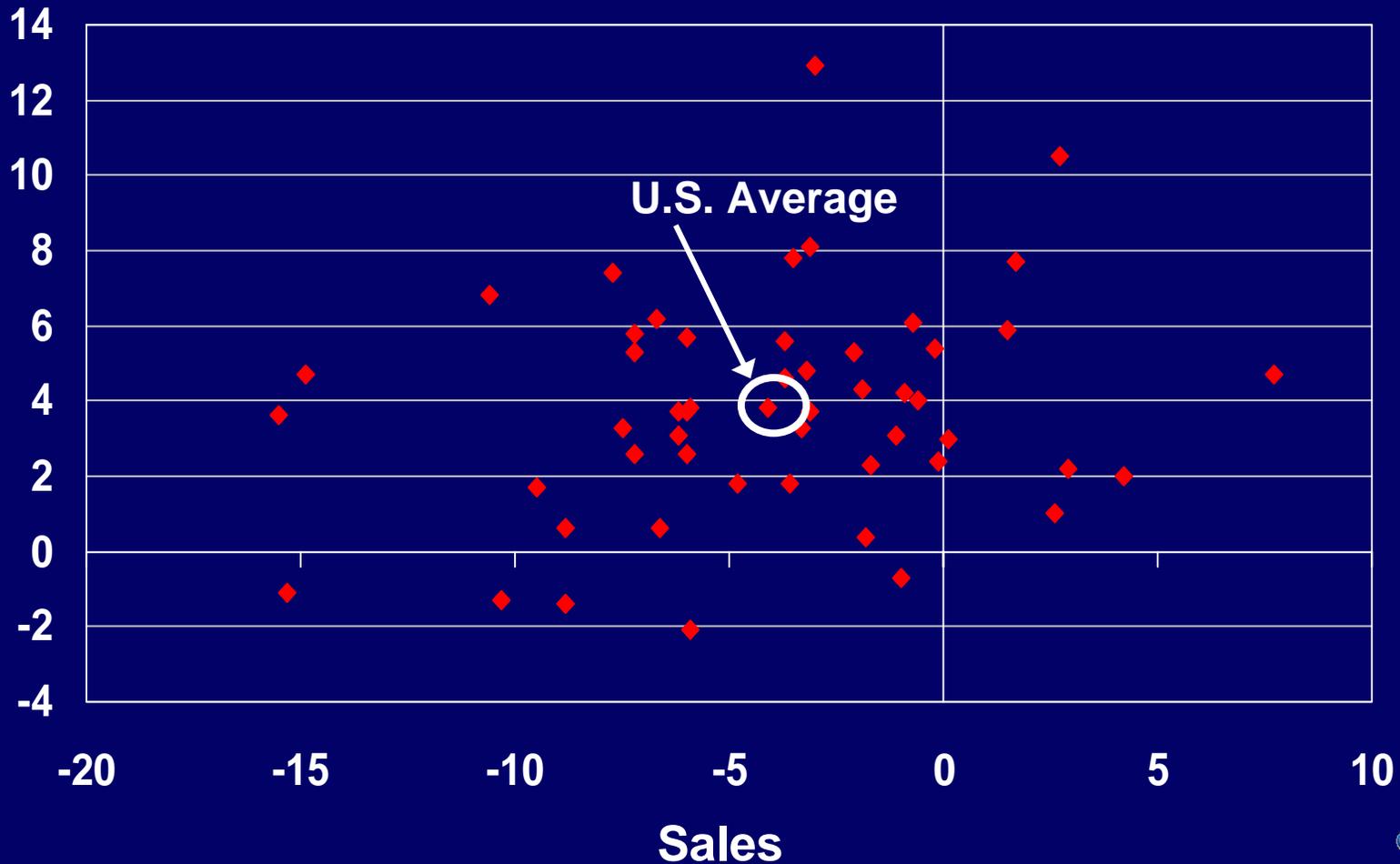
# Vehicle Sales

(2007 Percent Change Over Year Ago)



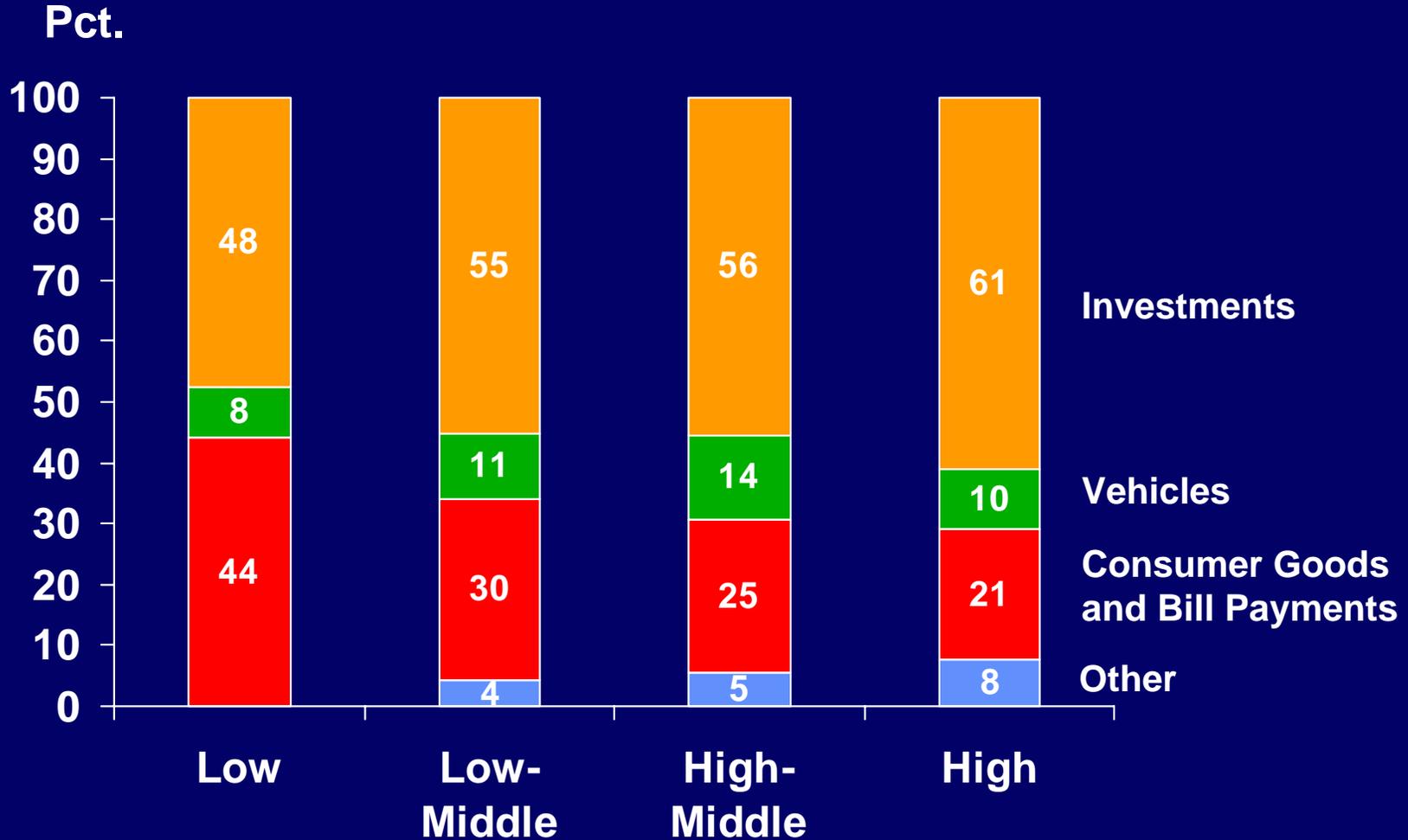
# 2007 Home Prices and Vehicle Sales

% Change Over Year Ago  
Home Prices



# U.S. Housing Downturn and Spending

## Uses of Mortgage Equity Withdrawal



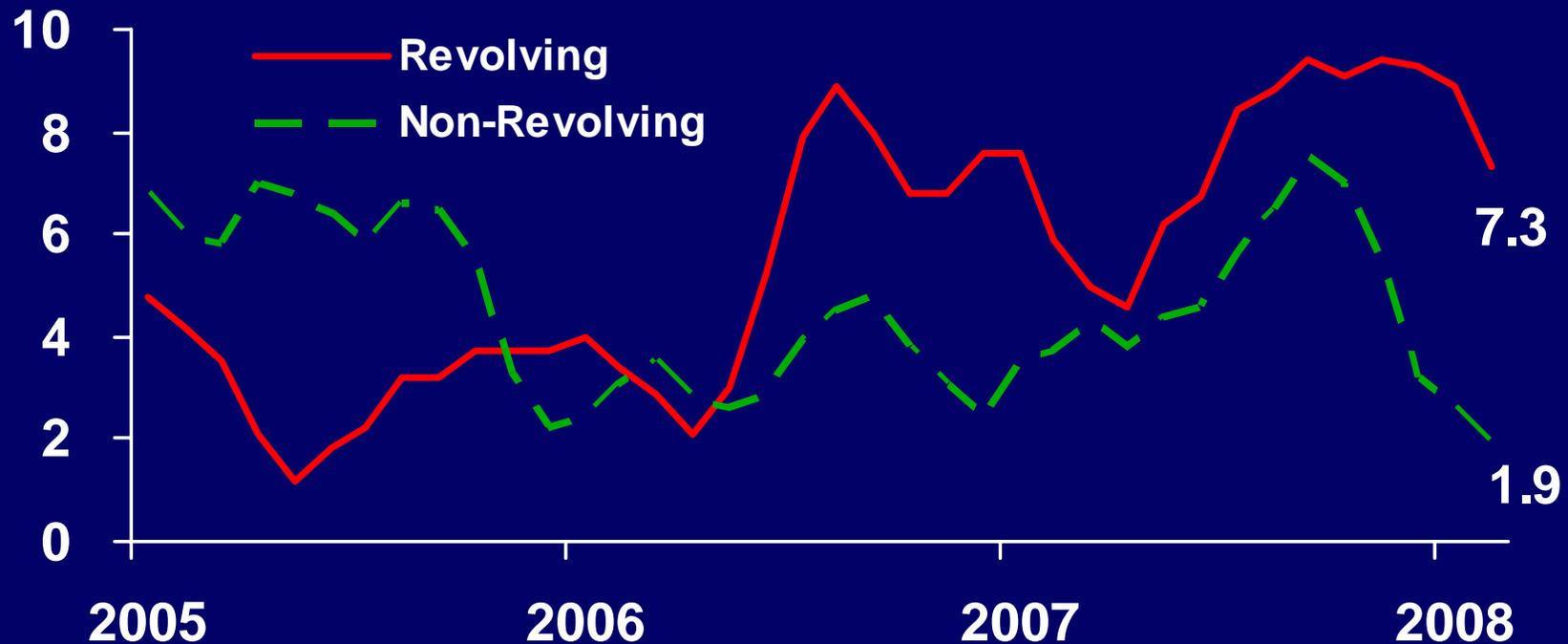
Source: Federal Reserve 2004 SCF and Brookings Institution



# Consumer Credit Outstanding

Total consumer credit was \$2.5 trillion as of February 2008, not including mortgage debt

Pct. Chg.  
Over Year Ago

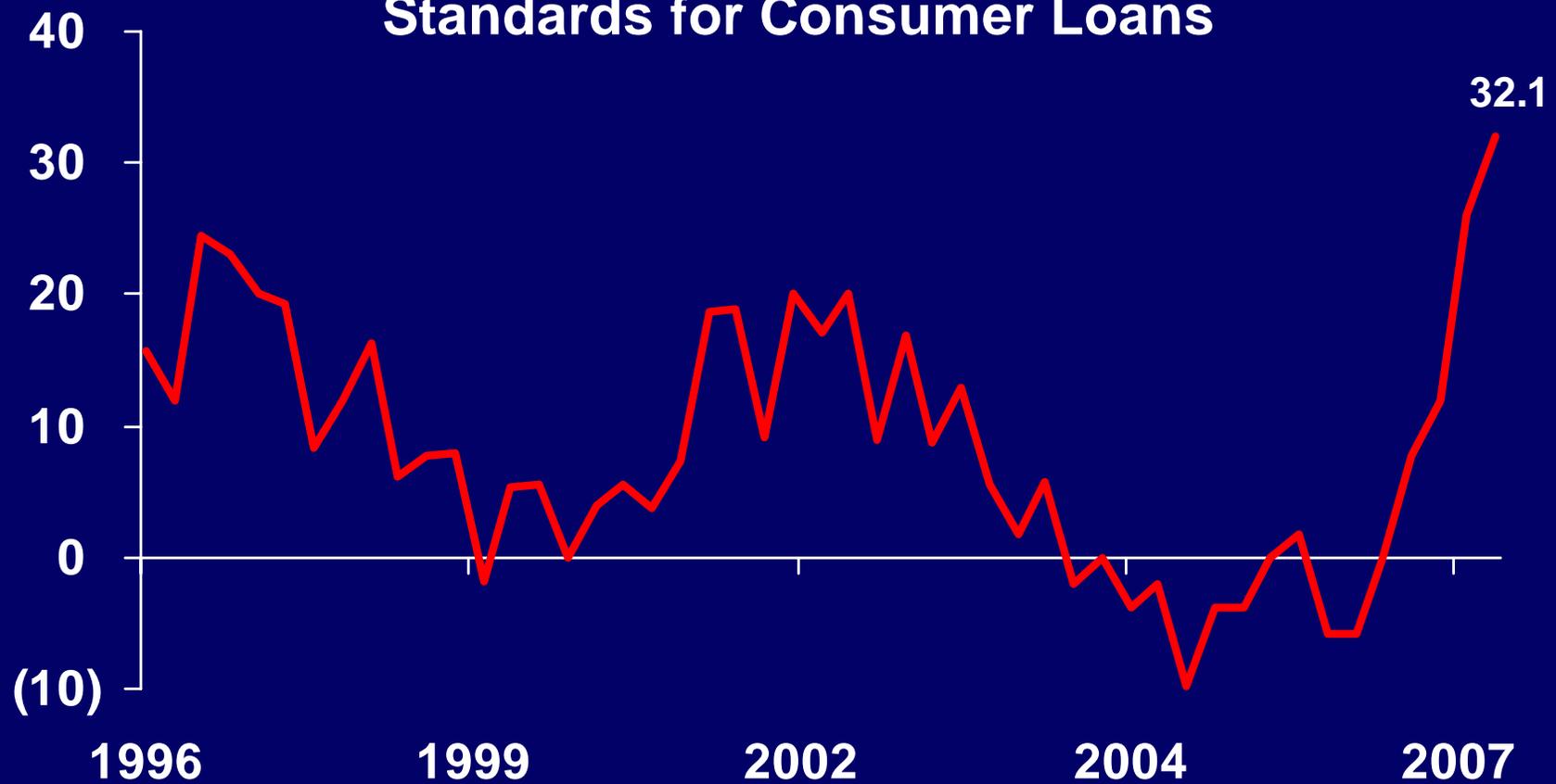


Note: Based on 3-month moving average



# Bank Lending Standards

## Net Percentage of Banks Tightening Standards for Consumer Loans



Note: Excluding credit cards and mortgages



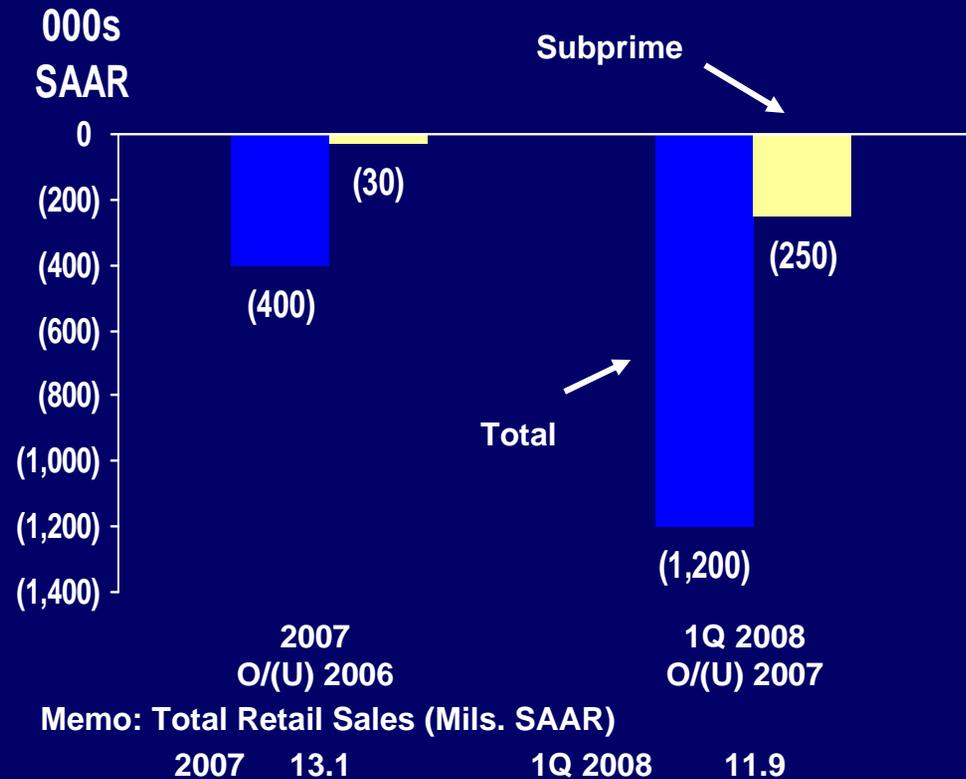
# U.S. Auto Financing Conditions

Interest Rate for New Auto Loans and the Federal Funds Rate



\* Consumer auto loans at captive finance companies; 1Q 2008 is January-February 2008 average

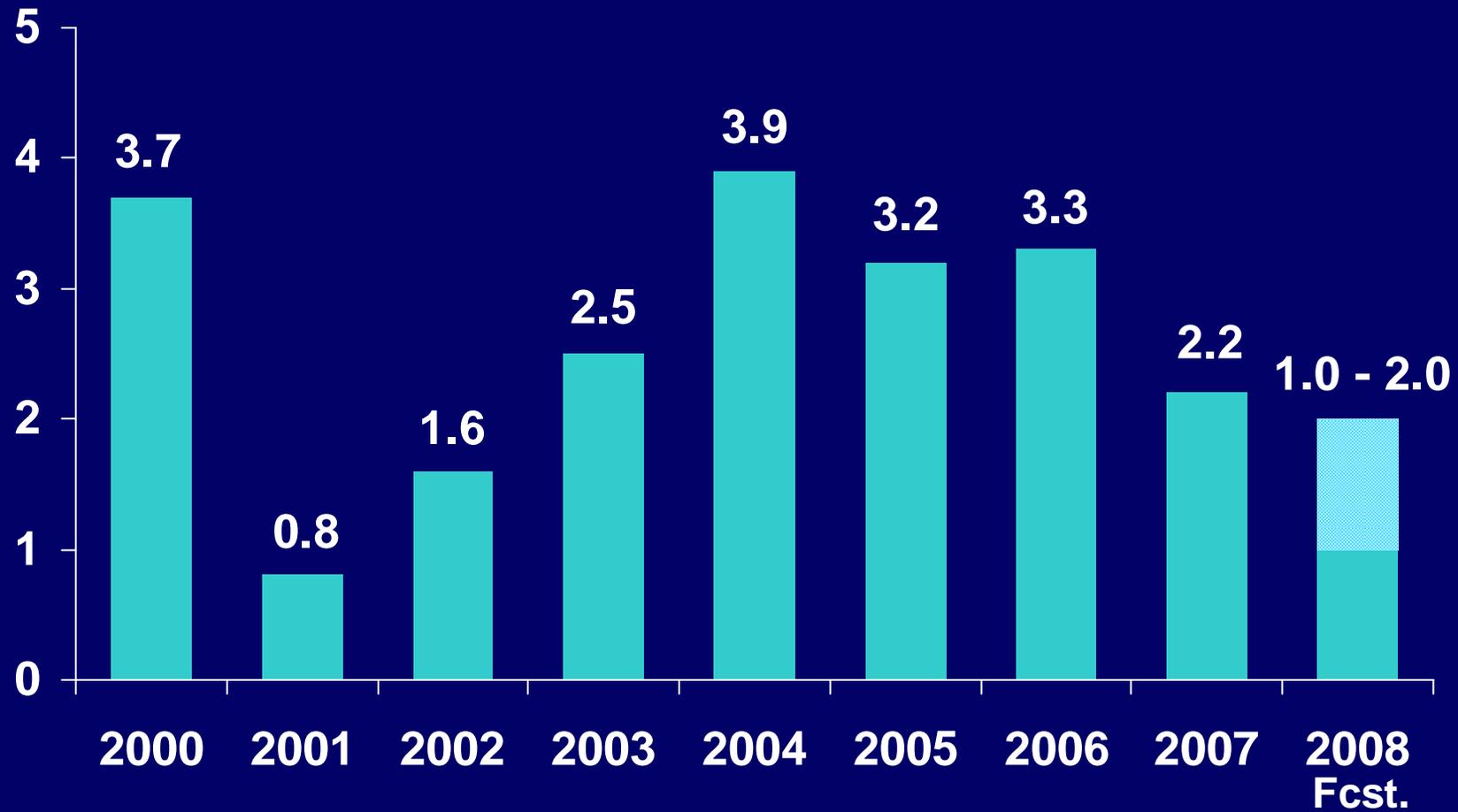
Decline in New Vehicle Retail Sales



# U.S. Real GDP Growth

Expect growth at the low end of the 1-2% range this year

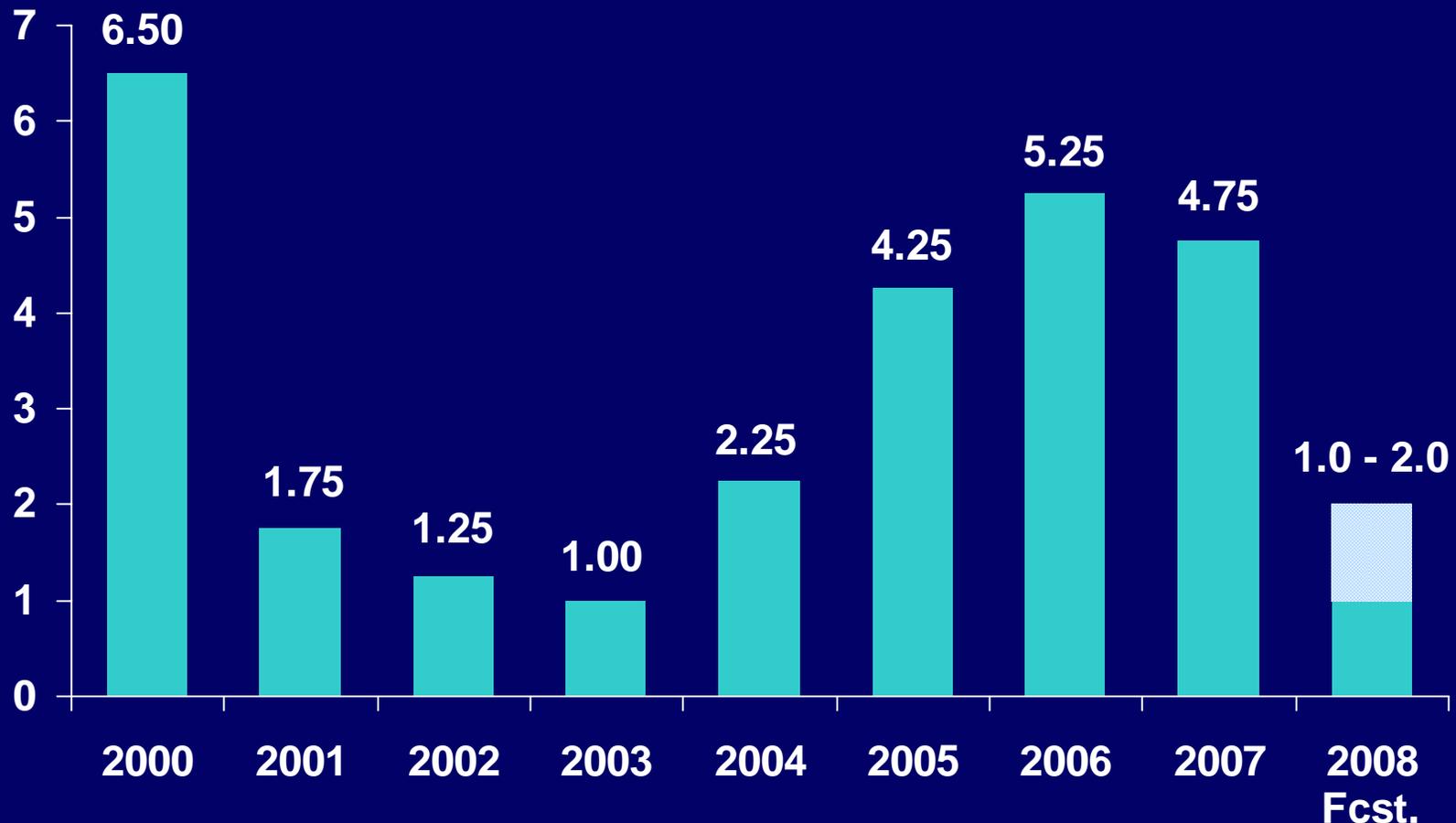
Annual % Chg.



# U.S. Federal Funds Rate

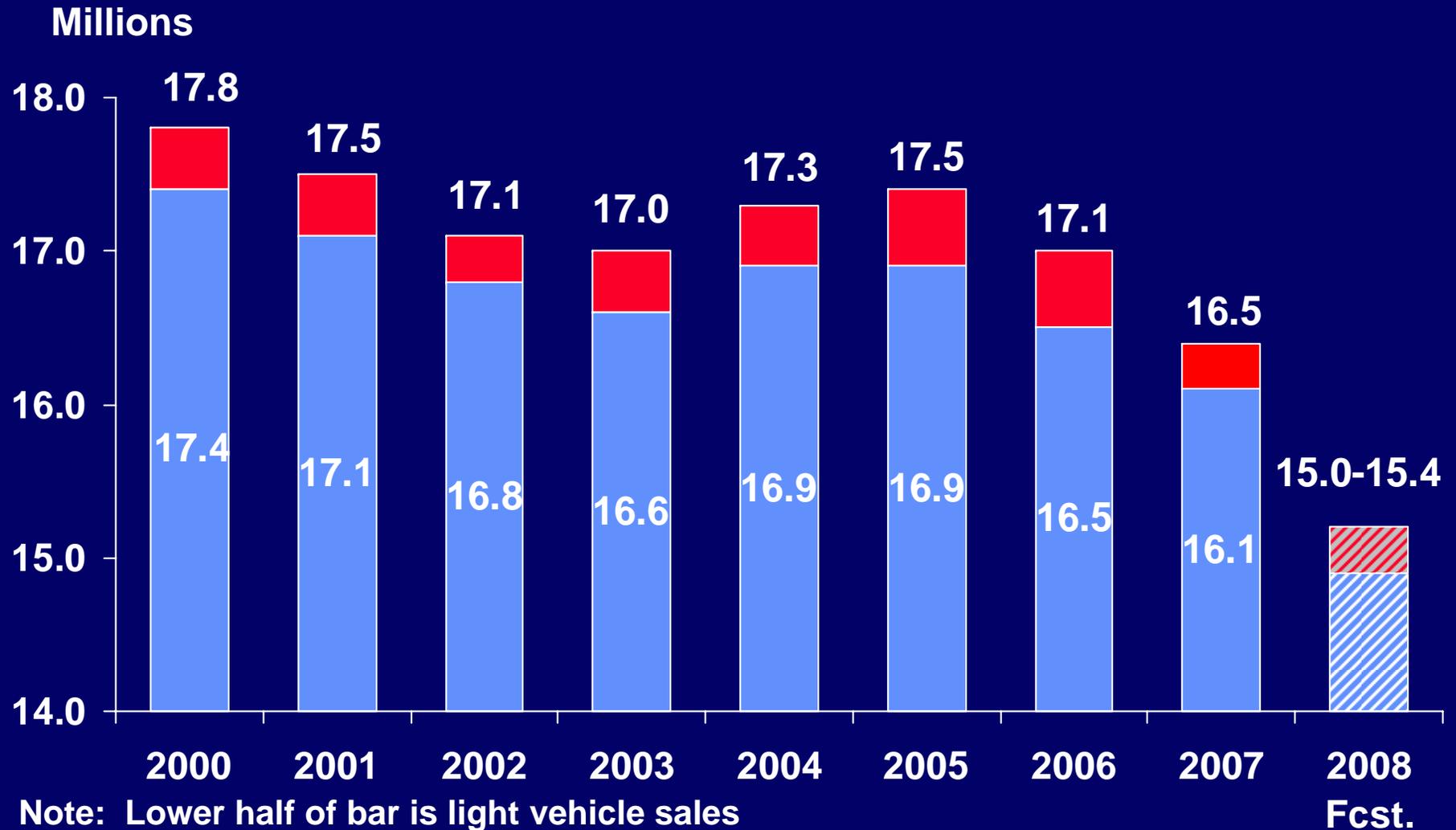
The Fed may have to cut more as housing and credit issues persist

Period End Pct.



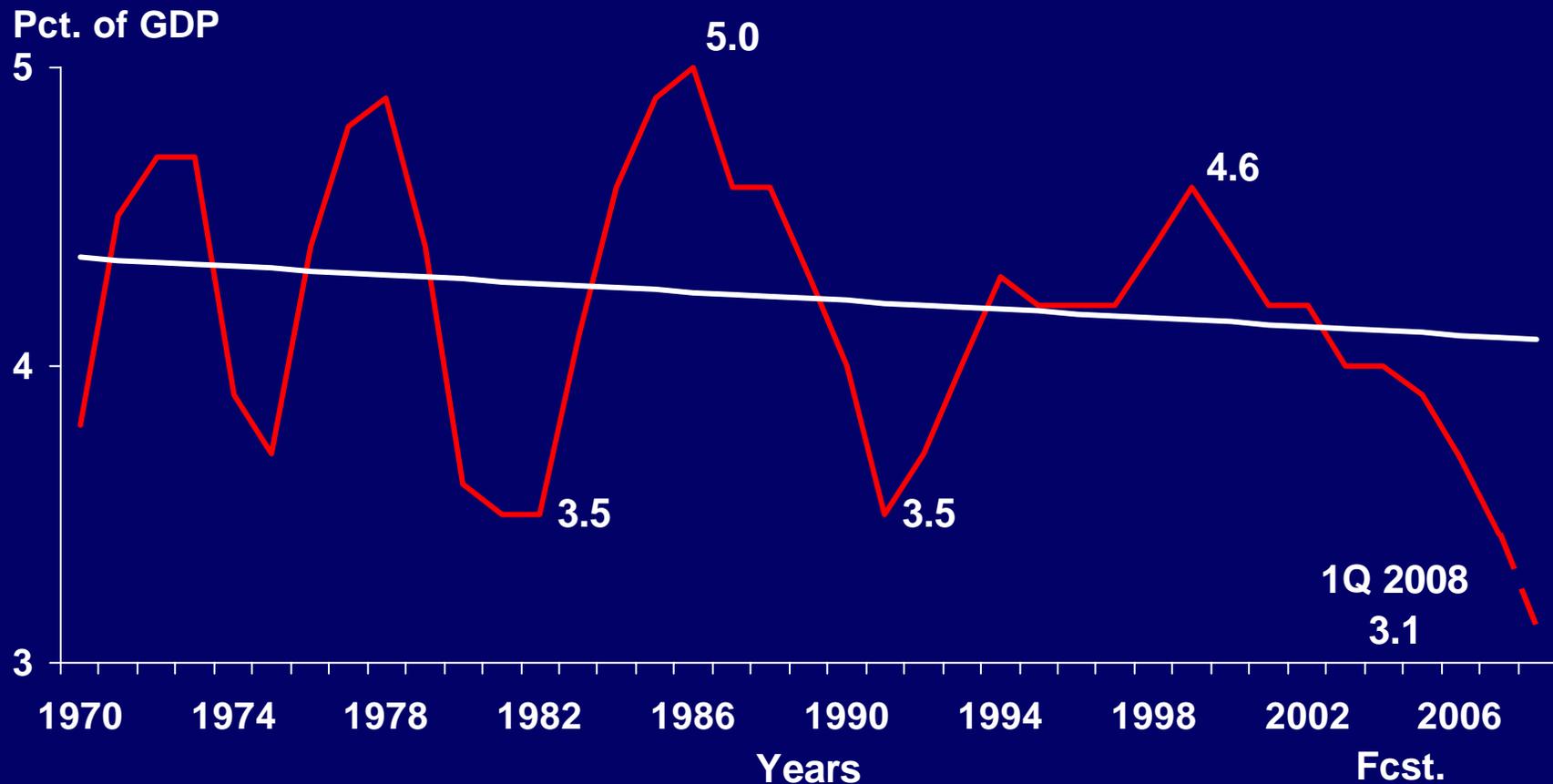
# U.S. Vehicle Sales

Forecast represents a decline of over 2 million units from 2005 peak



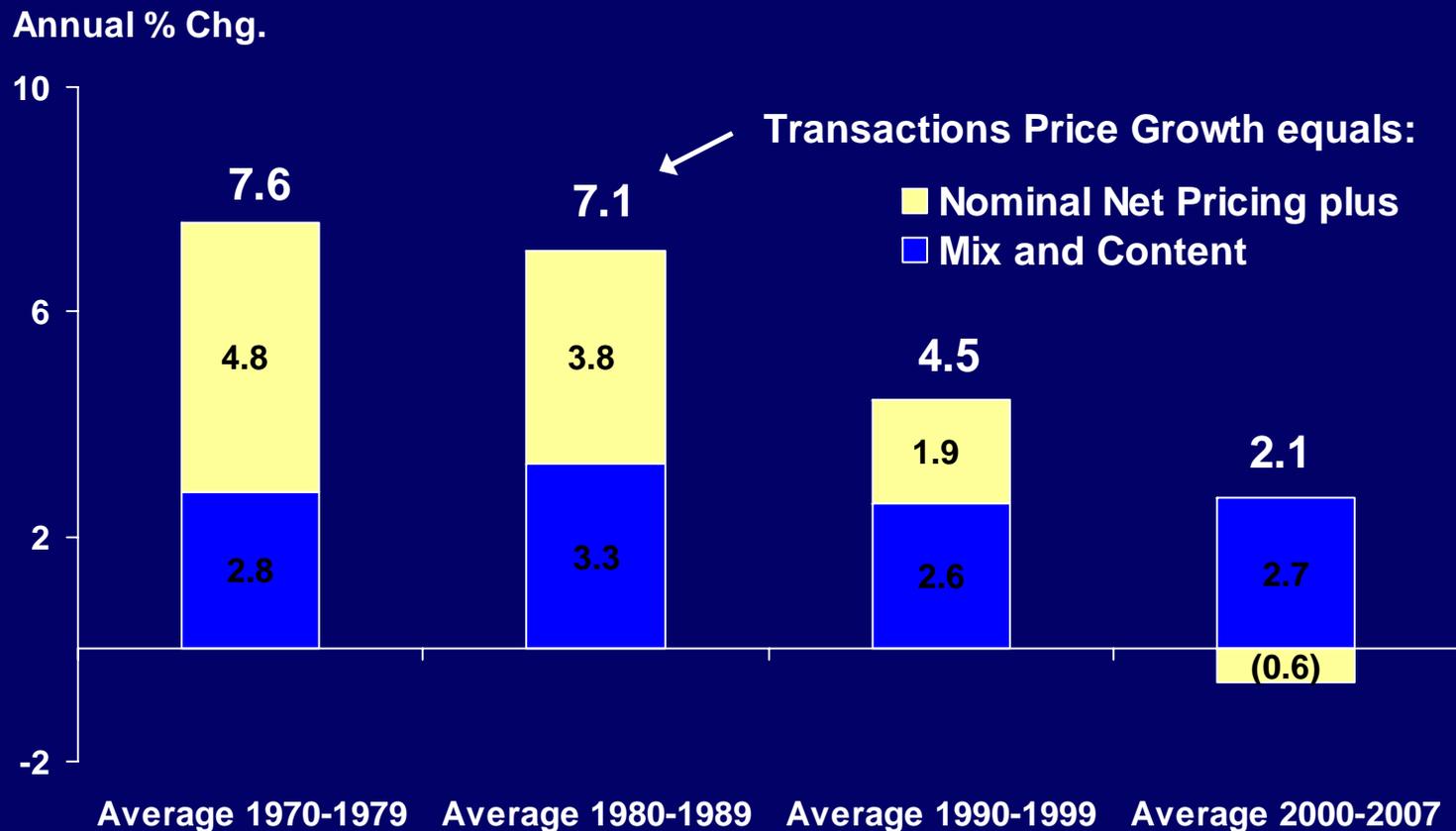
# U.S. Vehicle Spending Trends

Industry revenue, measured by total new vehicle spending as a share of GDP, is likely to hit a new low in this cycle



# New Vehicle Transactions Price Growth

Mix and content growth has averaged 2.8% since the 1970s, and has become the key driver of automotive industry revenue growth in recent years



# Industry Segmentation Trends

Gas prices have accelerated industry segmentation shifts that were already underway due to changes in demographics and product offerings

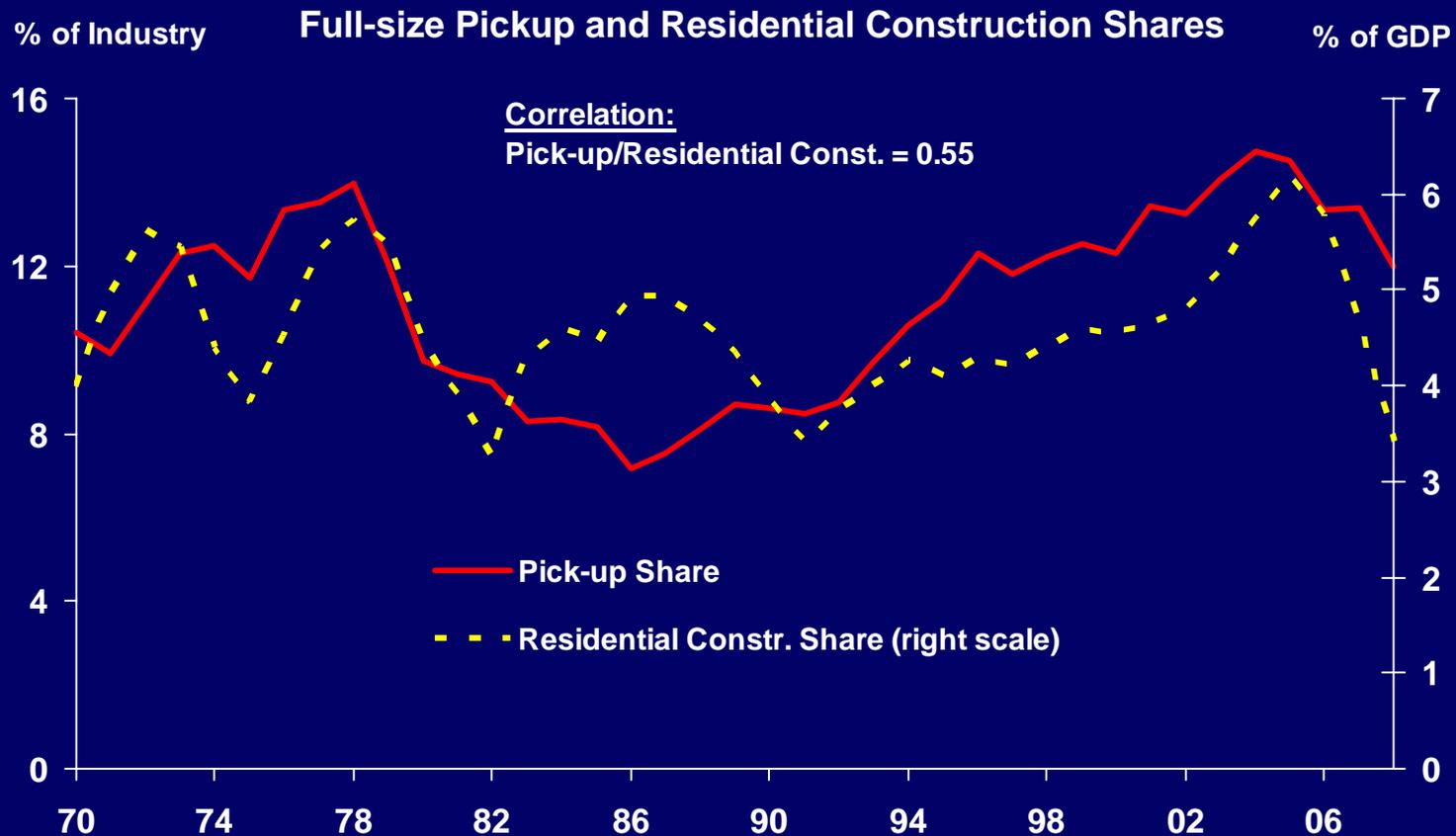
## Share of Total U.S. Industry Sales (%)

	2004	2005	2006	2007	First Quarter 2008	April 2008
B Car	1.3	1.3	2.0	2.6	3.0	3.6
C Car	13.2	14.4	15.3	16.2	16.5	19.2
Crossover Utility Vehicles	13.3	14.3	15.4	18.4	19.6	18.8
Sport Utility Vehicles	13.2	11.0	9.4	8.2	7.1	5.4
Full-Size Pickup	14.7	14.5	13.3	13.5	12.3	11.1
	26.5 {				26.7 {	
Memo:						
Retail Gasoline (\$/gallon)	\$1.85	\$2.27	\$2.57	\$2.80	\$3.11	\$3.46



# Housing Market and Full-Size Pickup Sales

Full-size pickup sales are correlated with residential construction activity



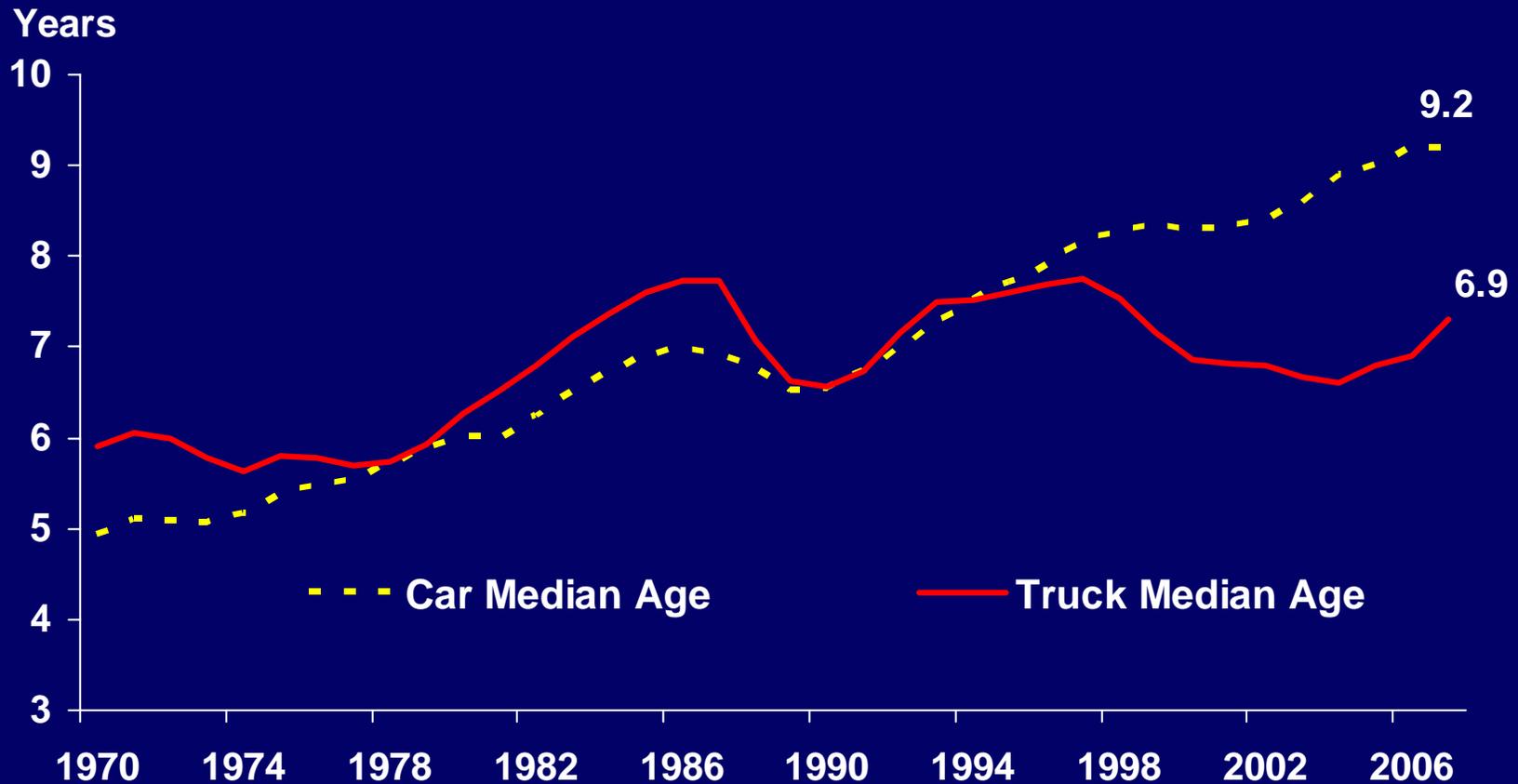
Pickup share = Pickup sales as % of industry sales

Residential share = Residential construction spending as % of GDP



# U.S. Median Age of Cars and Trucks

Age of median car on the road has risen to over 9 years, while age of median truck is just under 7 years

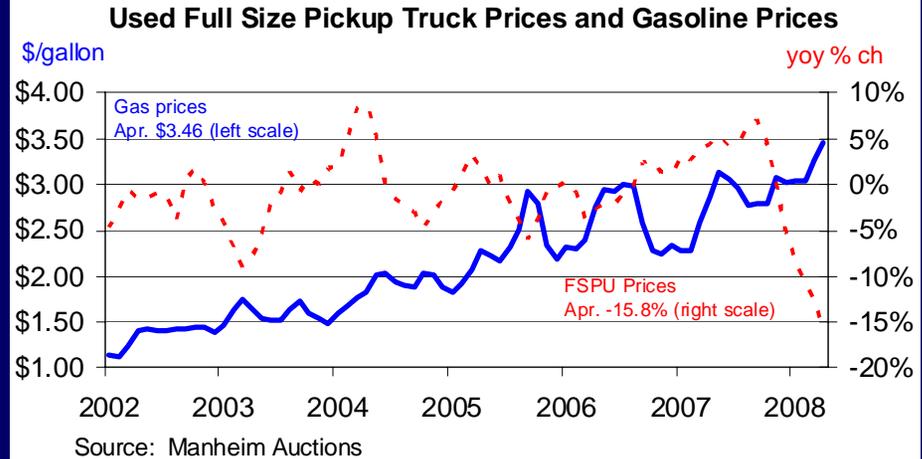
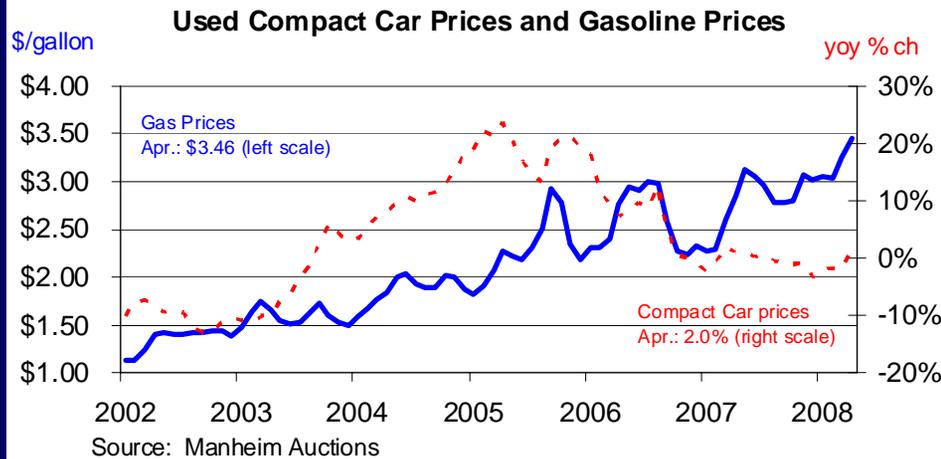
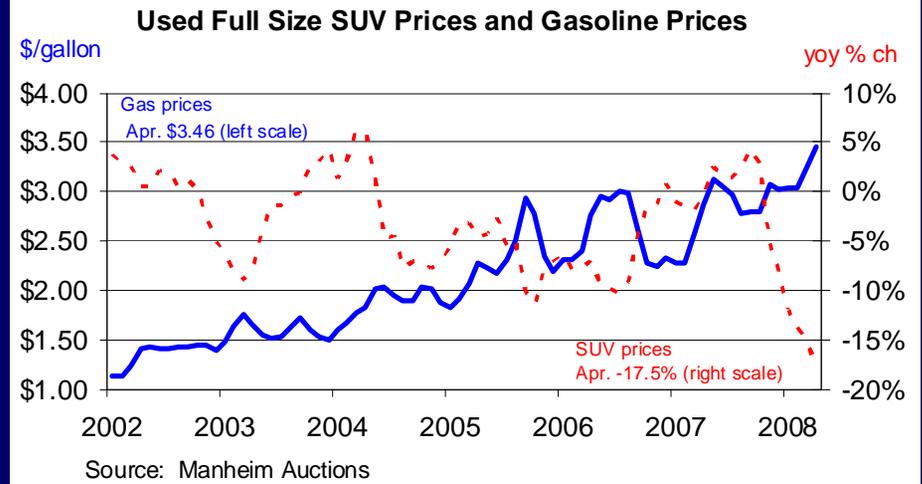


Source: R. L. Polk & Co.



# Used Vehicle Values and Gas Prices

Residual values for less fuel-efficient vehicles have declined sharply with higher gas prices, while values for small cars have been relatively steady



# Summary

---

- **Total vehicle sales in the 15.0-15.4 million unit range this year**
- **Segment shifts are becoming more pronounced and likely have a structural component**
- **Industry revenue under pressure from pricing, volume decline and mix adjustments**
- **But demand for content will remain a key element of the new vehicle market**

