

Federal Reserve Bank of Chicago
22nd Annual Economic Outlook Symposium

Automotive Outlook

Will Shearin
December 5, 2008

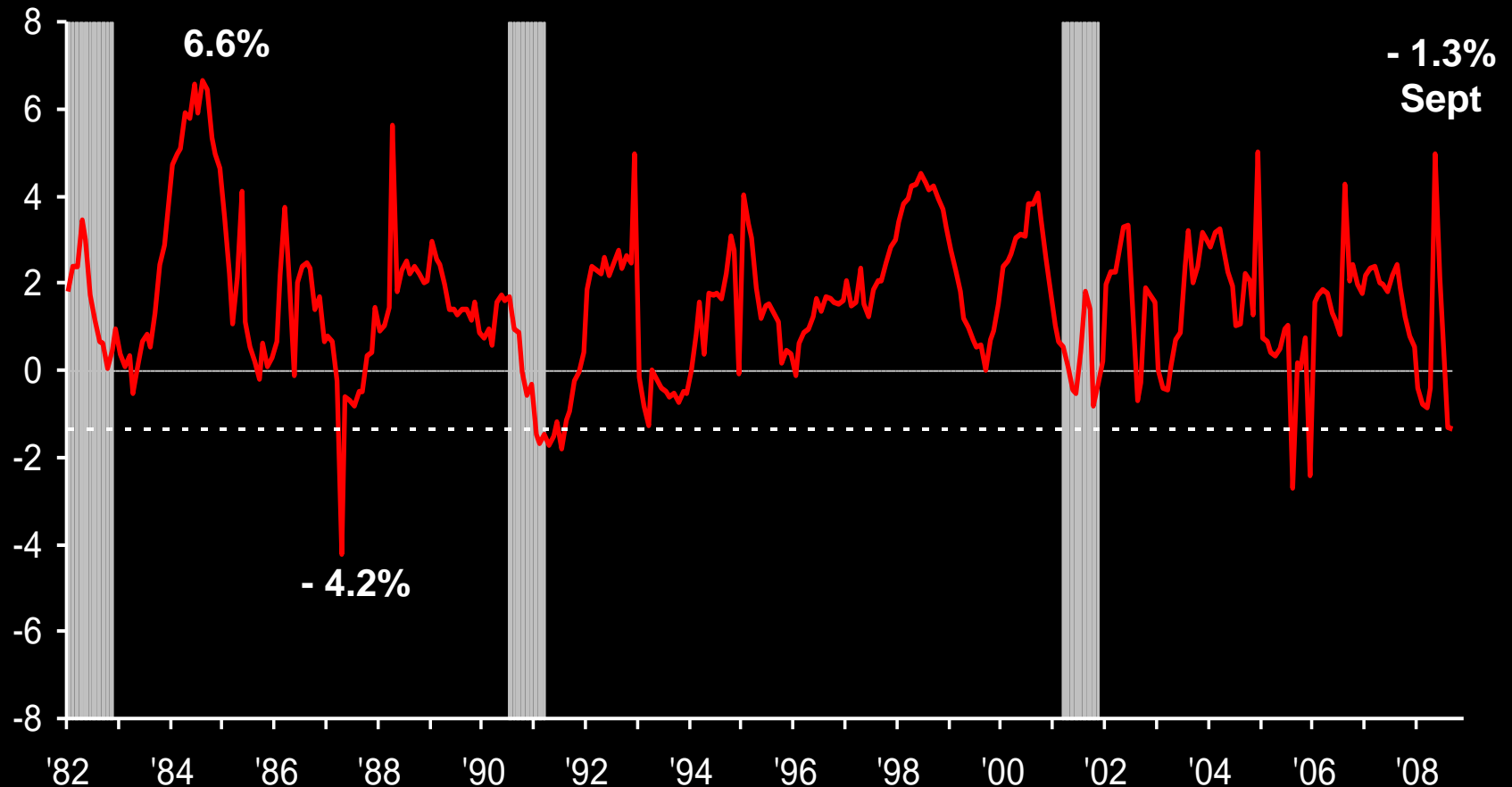
Ability to Buy Leading Indicators

	<u>Nov '07</u>	<u>Nov '08</u>
Disposable Income	Green	Red
Household Debt	Red	Yellow
Yield Curve	Yellow	Green
Inflation	<u>Yellow</u>	<u>Red</u>
Composite	Yellow	Red

Real Disposable Income

Per Household

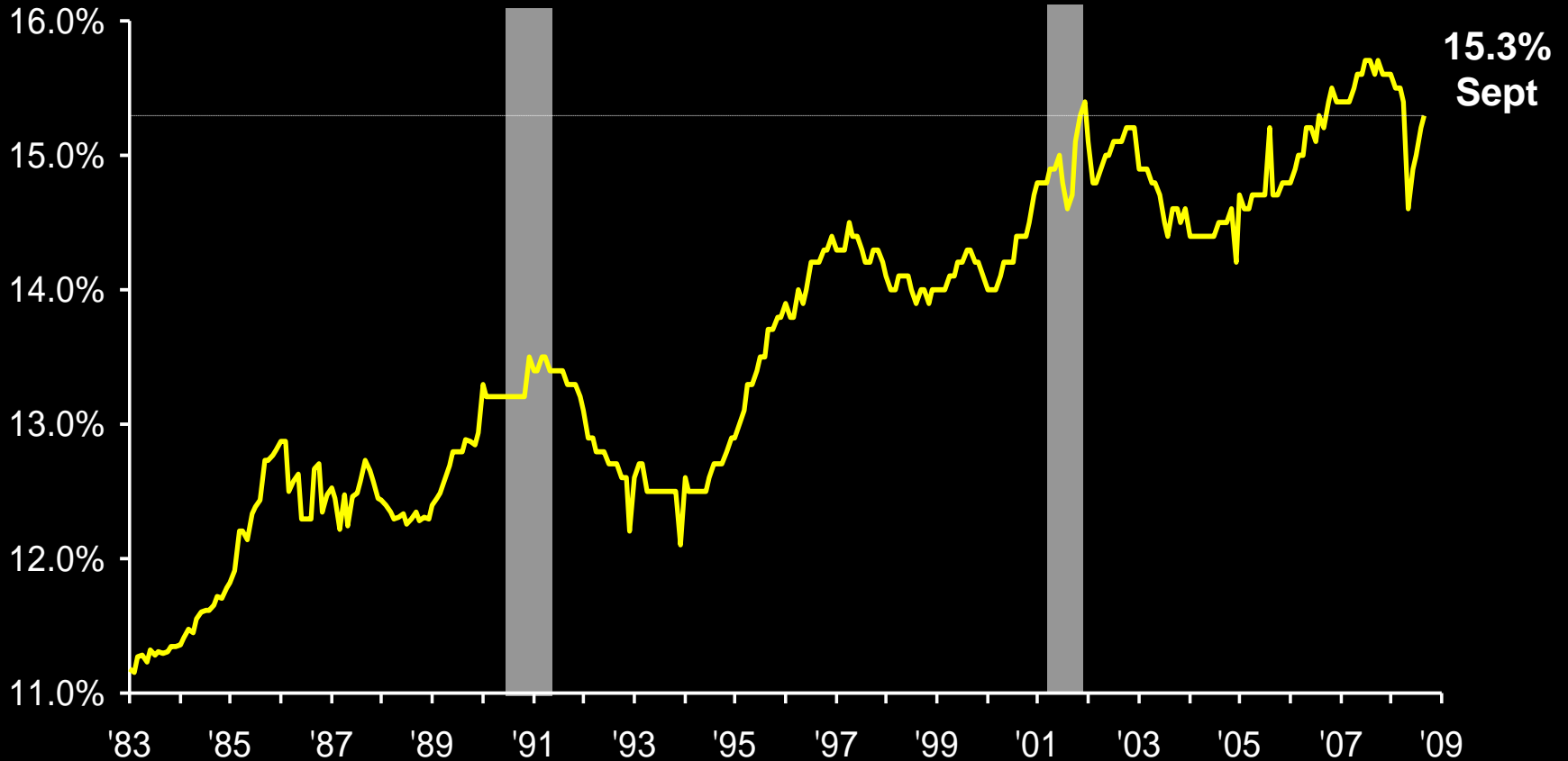
% Change
Year Over Year



Consumer Debt Payments

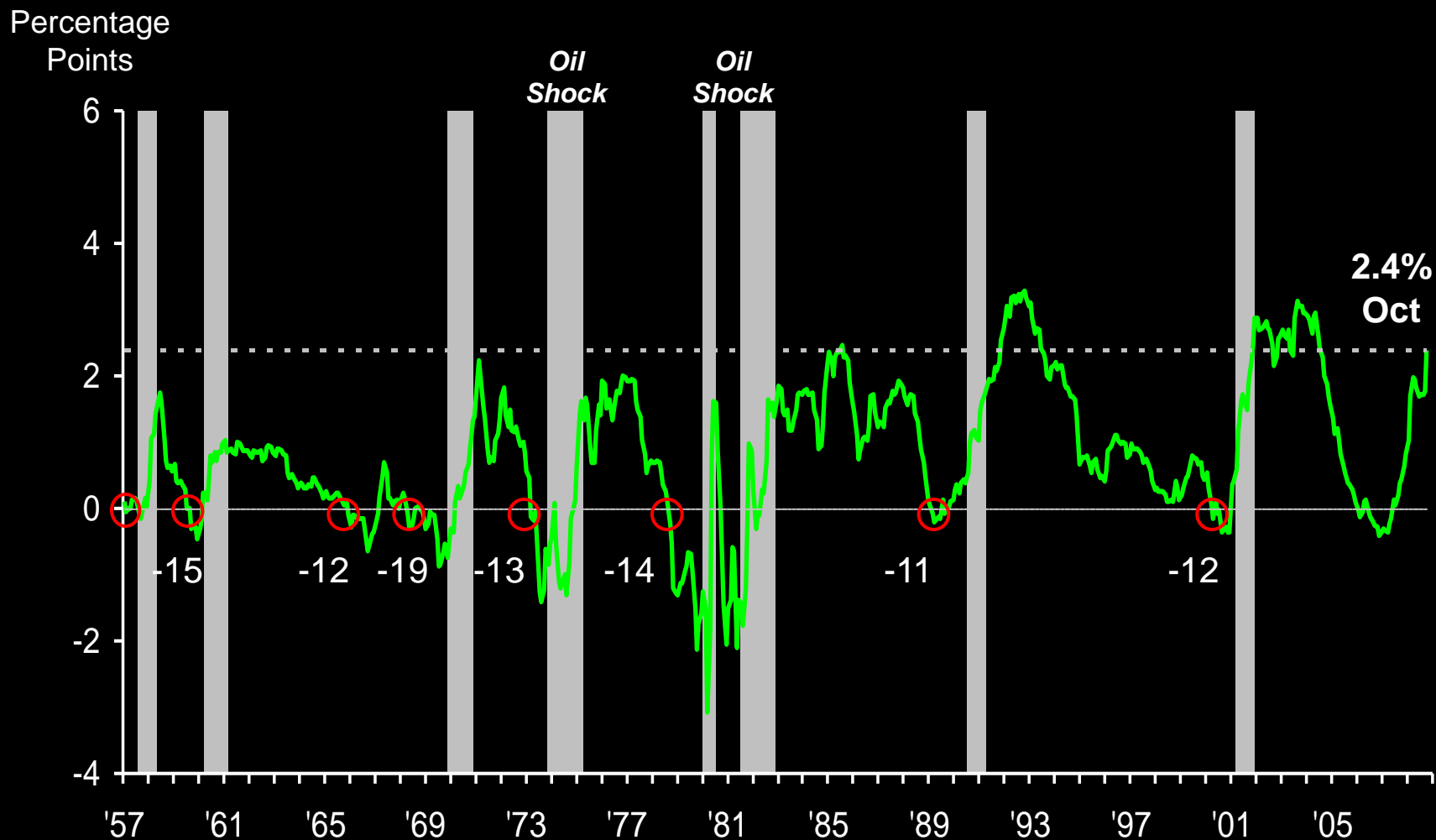
Installment, Mortgage & Auto Leases

% of Disposable
Personal Income



The Yield Curve

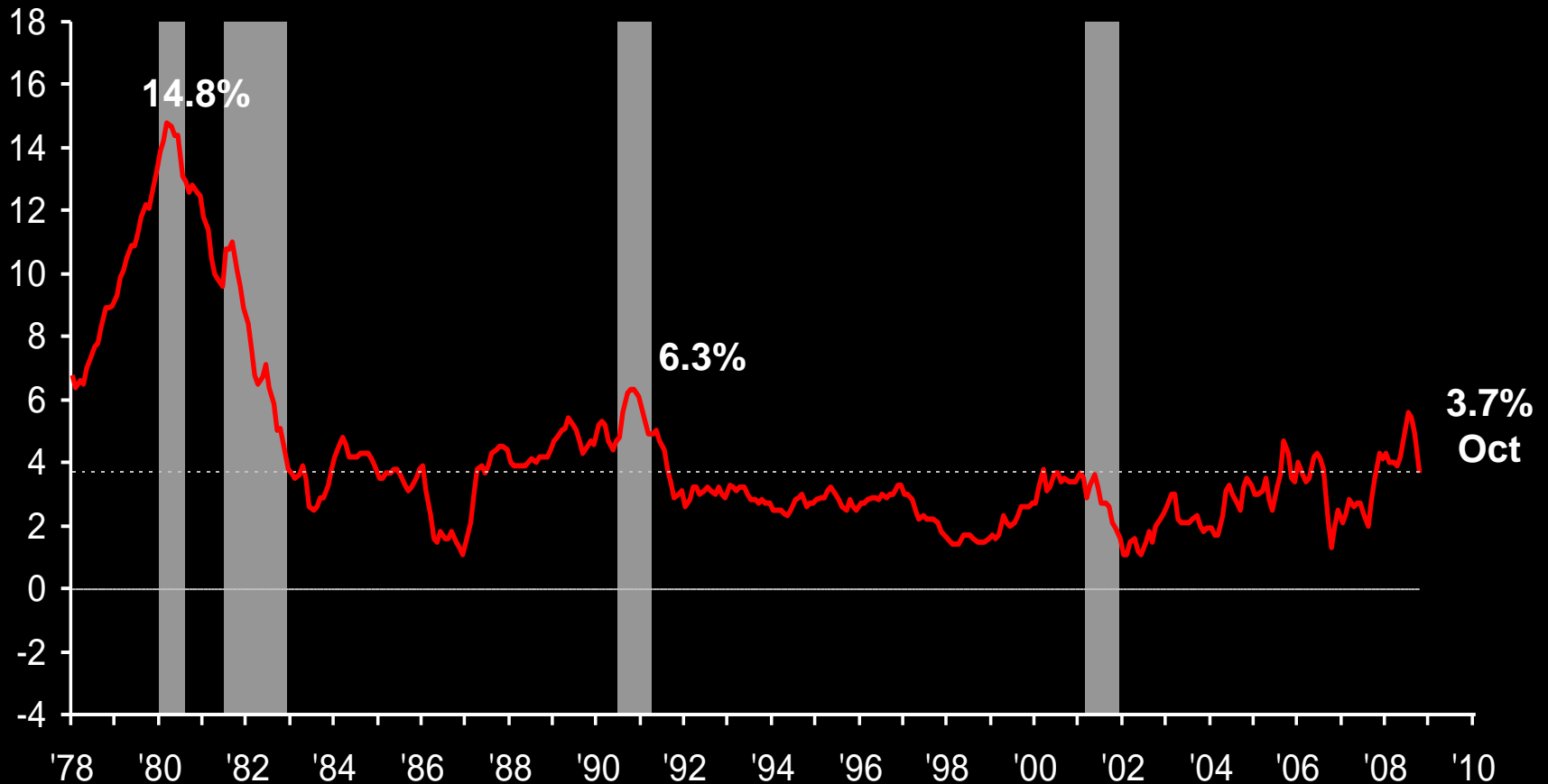
10 Yr Minus 1 Yr Treasuries



Consumer Prices

All Items, Not Seasonally Adjusted

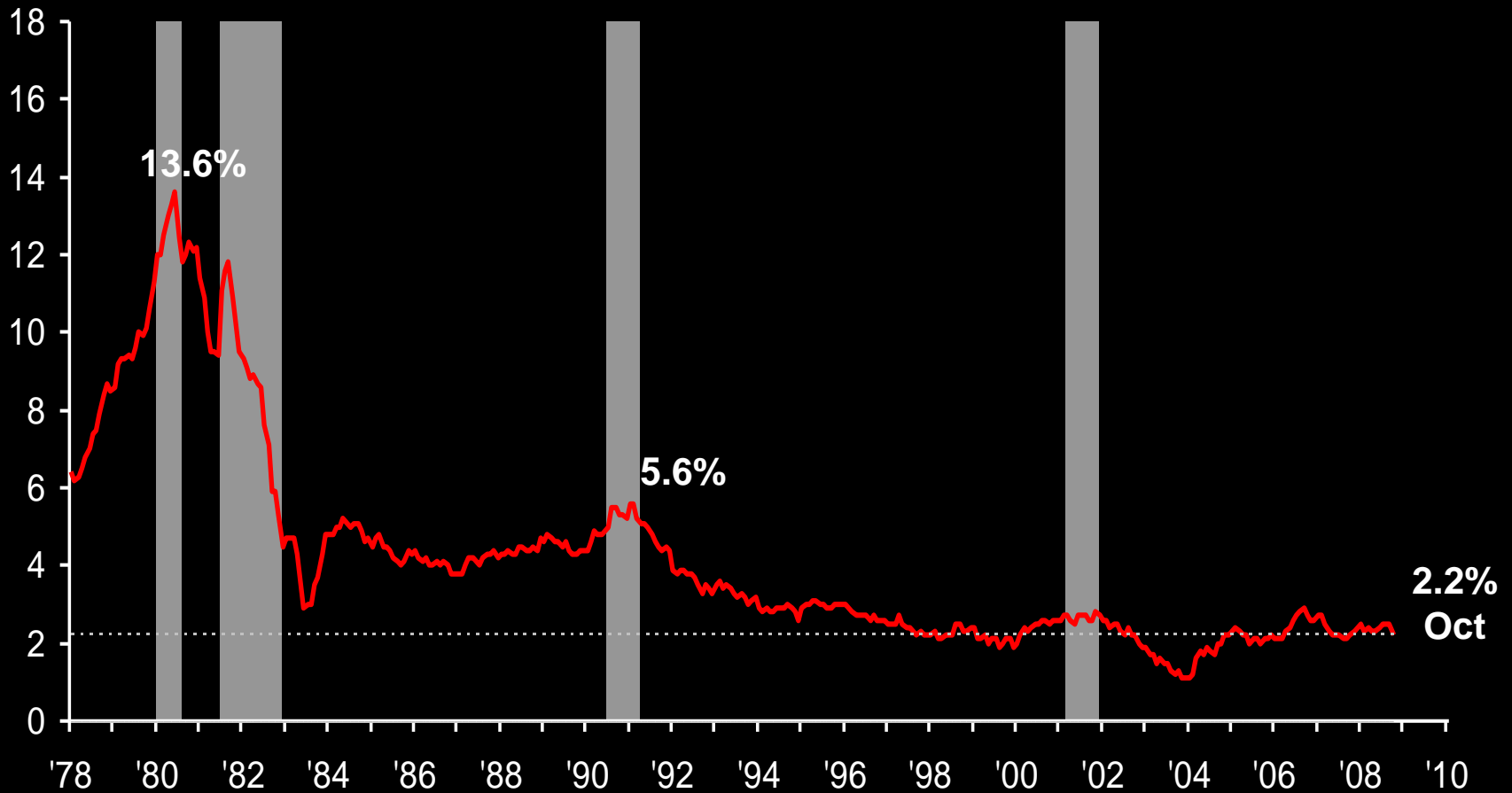
% Change
Yr/Yr



Consumer Prices: Core Inflation

All Items Less Food & Energy, NSA

% Change
Yr/Yr

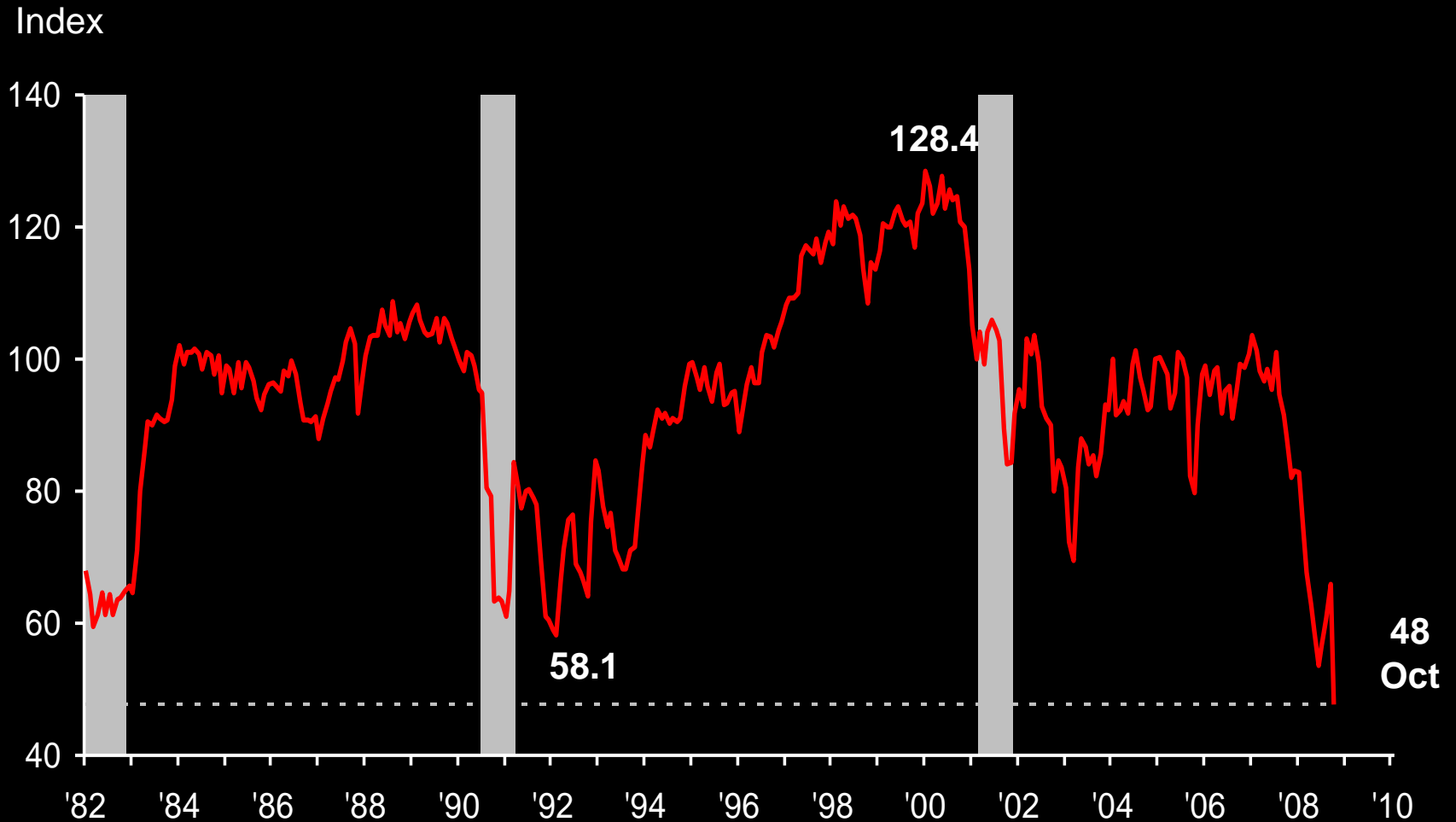


Willingness to Buy Leading Indicators

	<u>Nov '07</u>	<u>Nov '08</u>
Consumer Attitudes	Red	Red
Unemployment Claims	Green	Red
Workweek	Green	Yellow
Stock Market	<u>Green</u>	<u>Red</u>
Composite	Green	Red

Consumer Attitudes

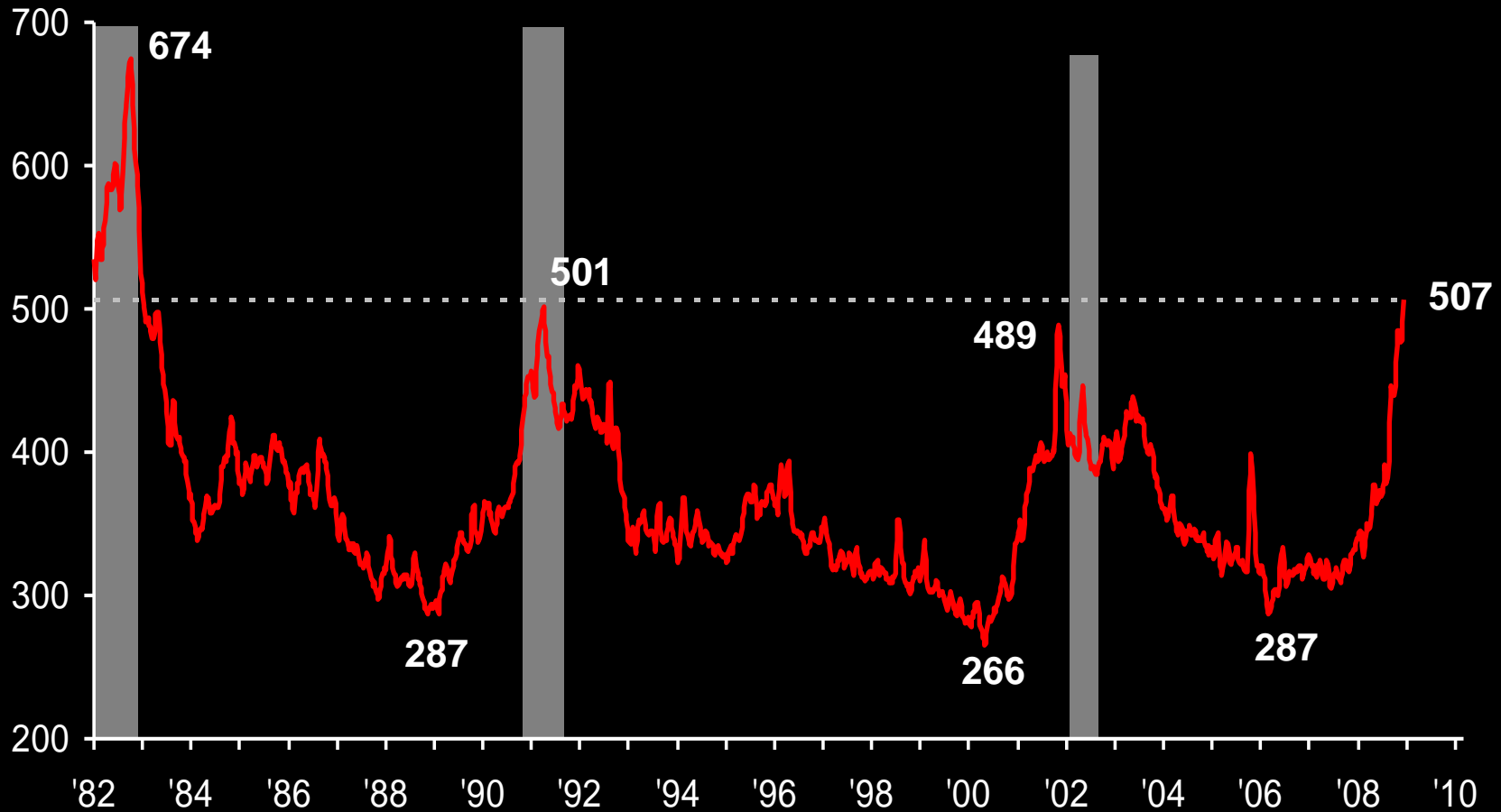
Average of U of M & Conference Board



Initial Unemployment Claims

4 Week Moving Average

Thousands



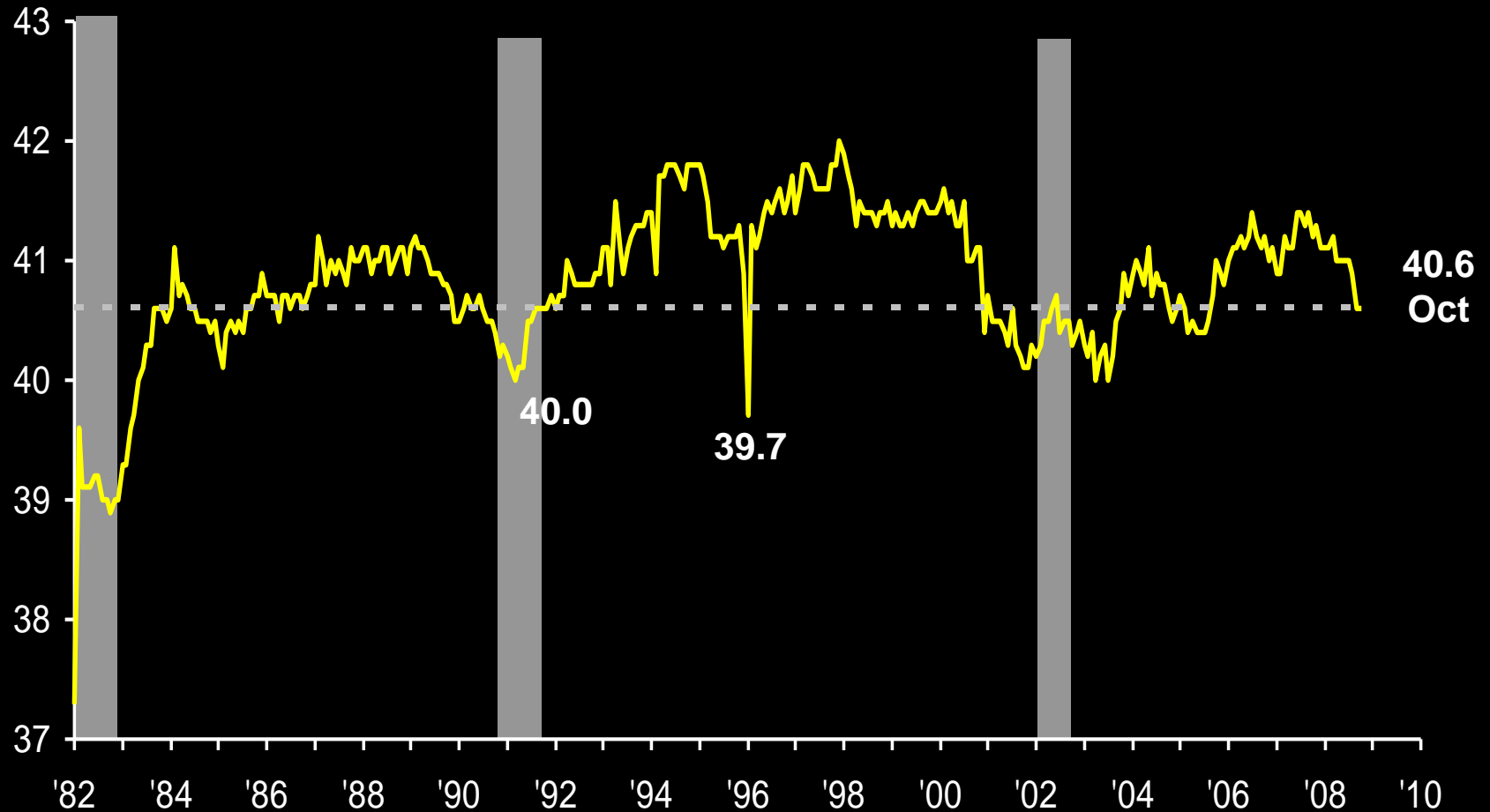
U. S. Unemployment Rate



Manufacturing Workweek

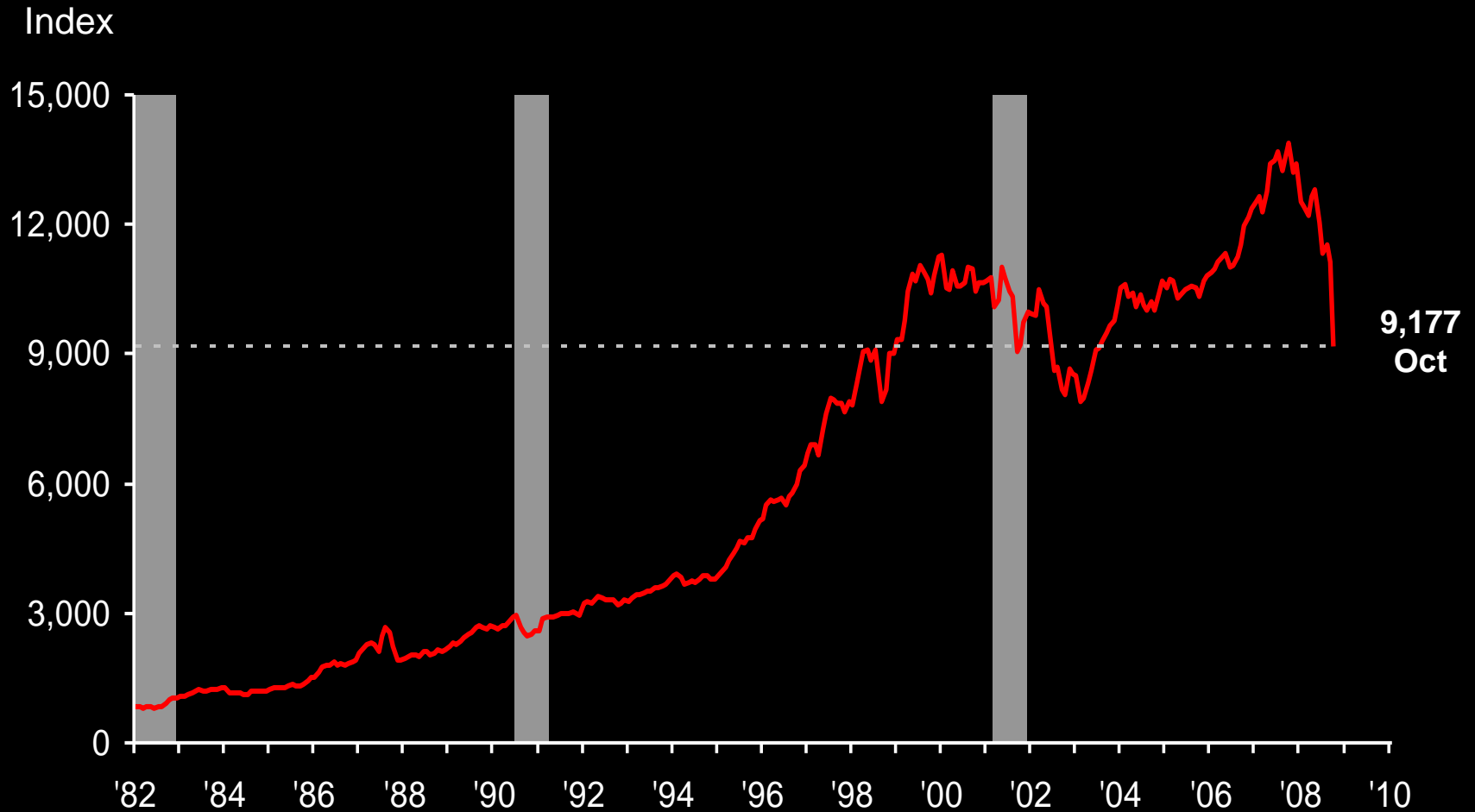
Includes Part-time & Overtime

Hours



Stock Market

Dow Jones Industrial Average

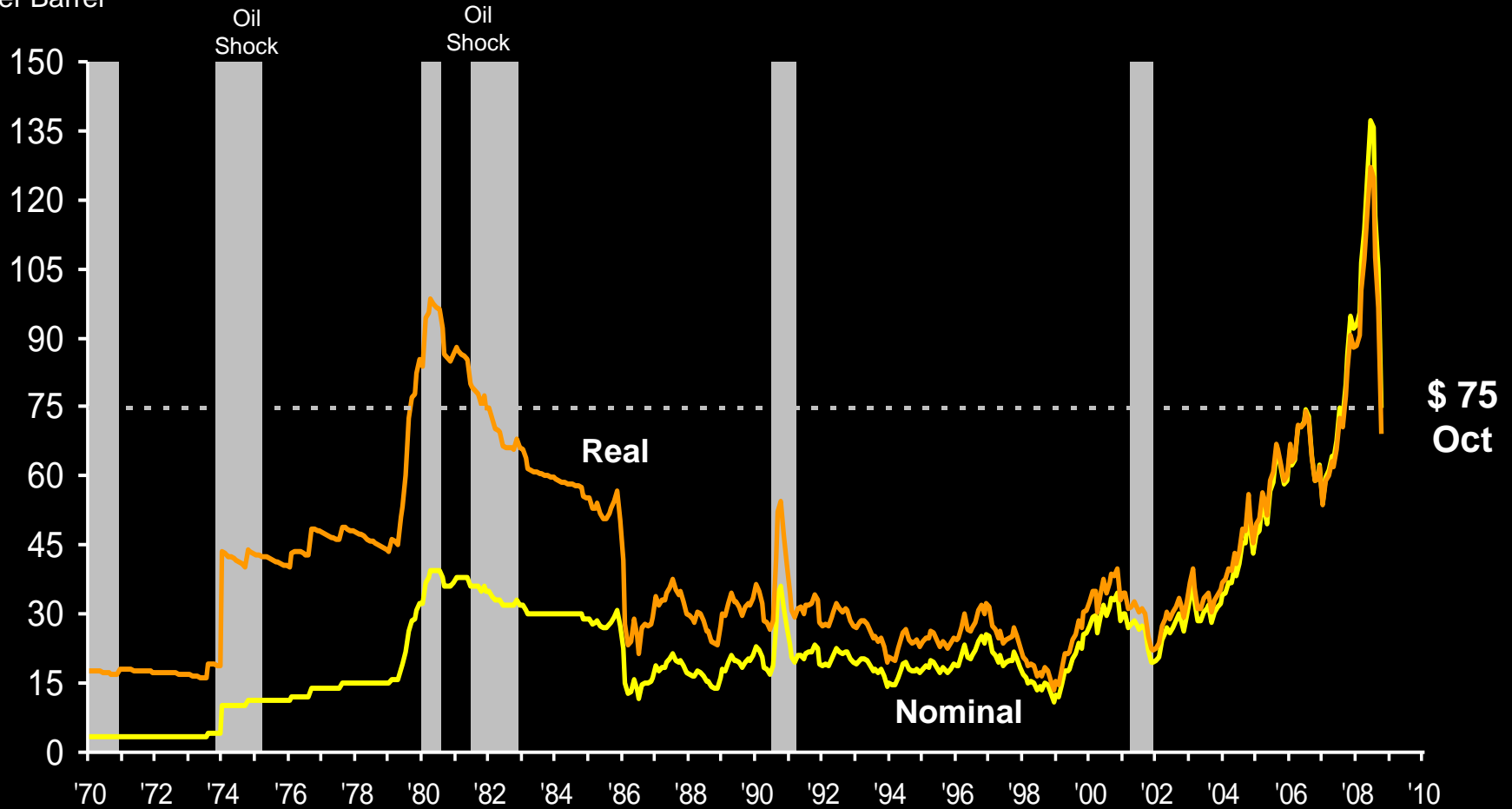


Energy and Other Commodities

Oil Prices

West Texas Intermediate

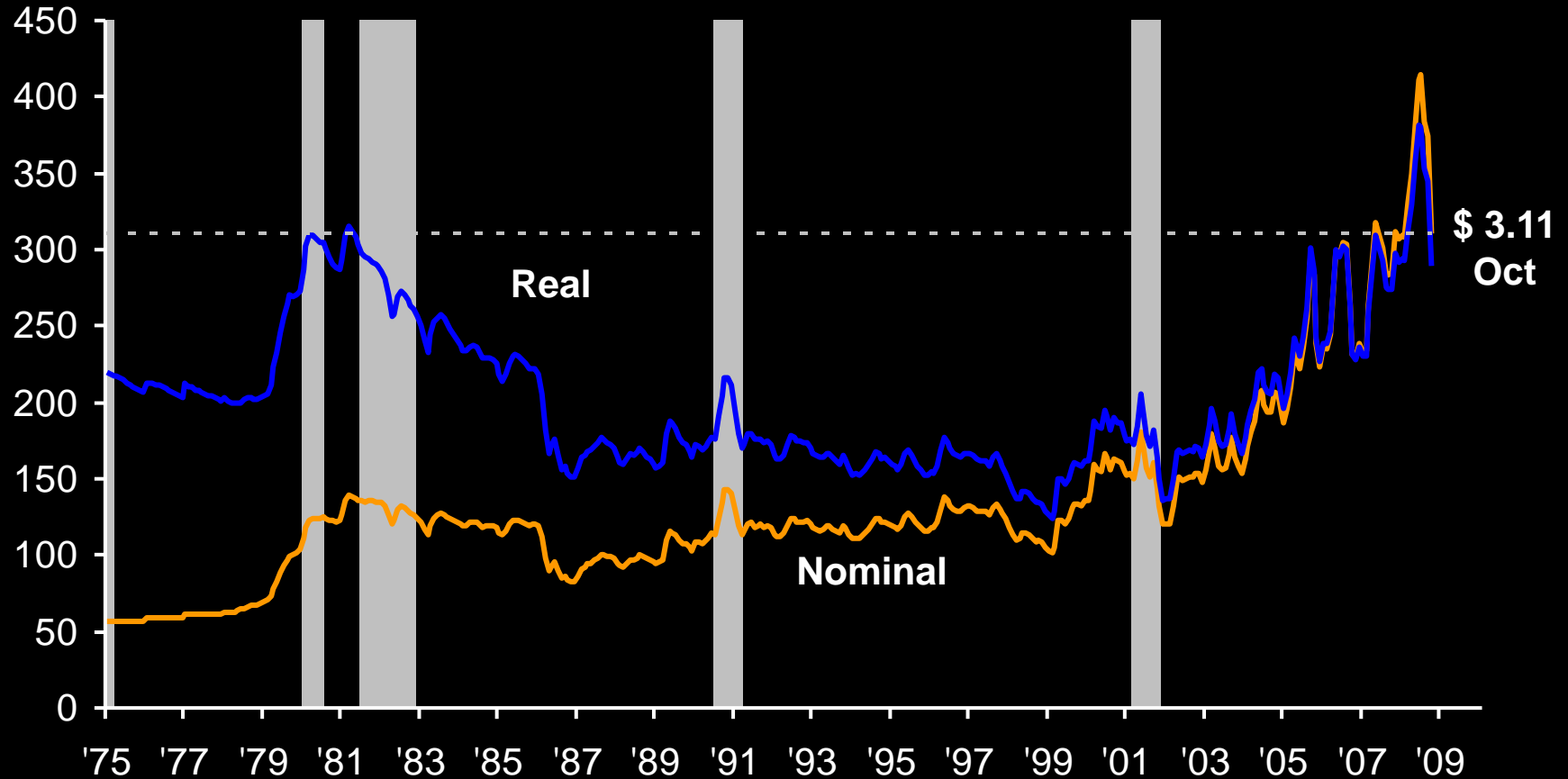
2006 Dollars
Per Barrel



Gasoline Prices

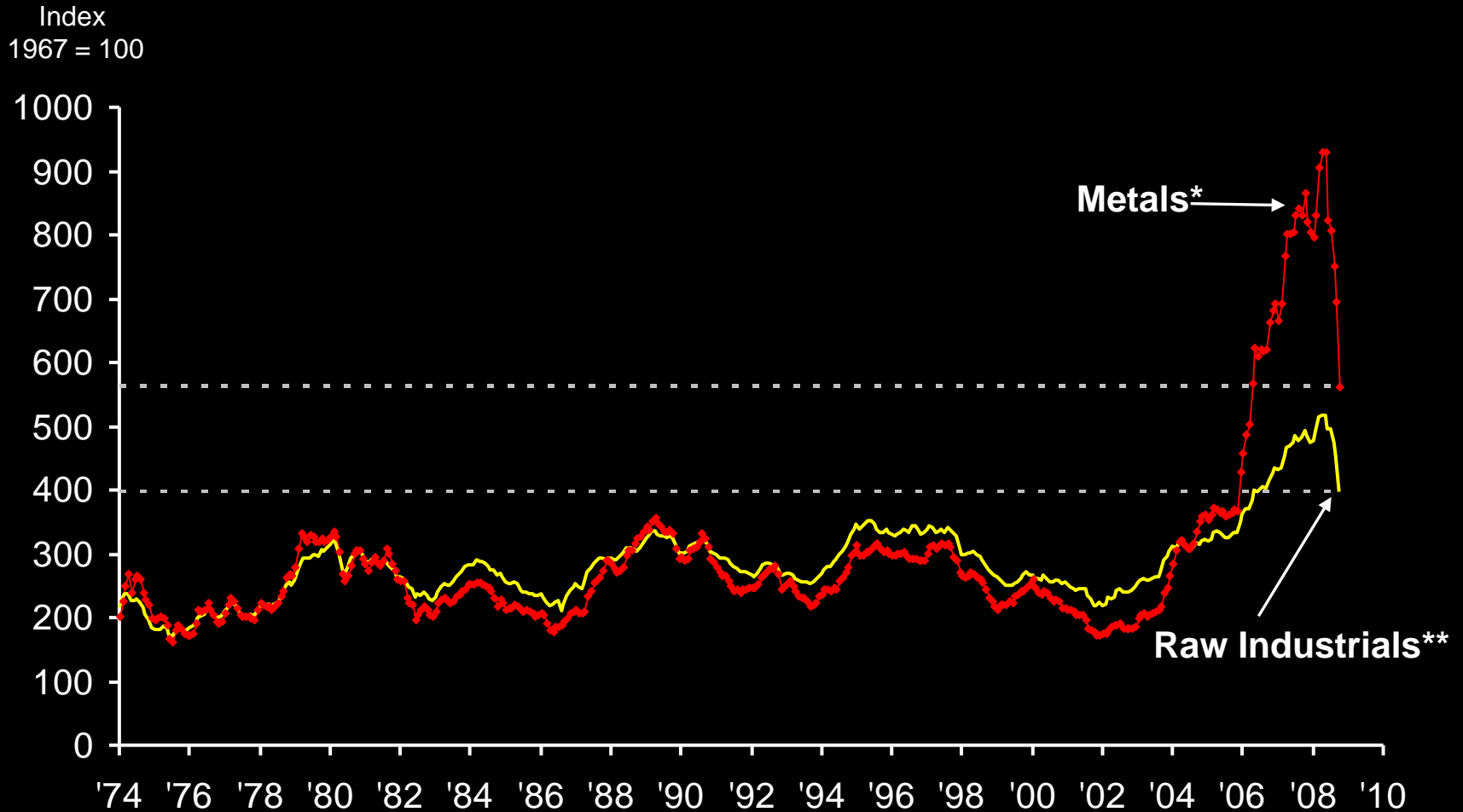
All Grades, Retail

Cents per
Gallon, 2006\$



Commodity Prices

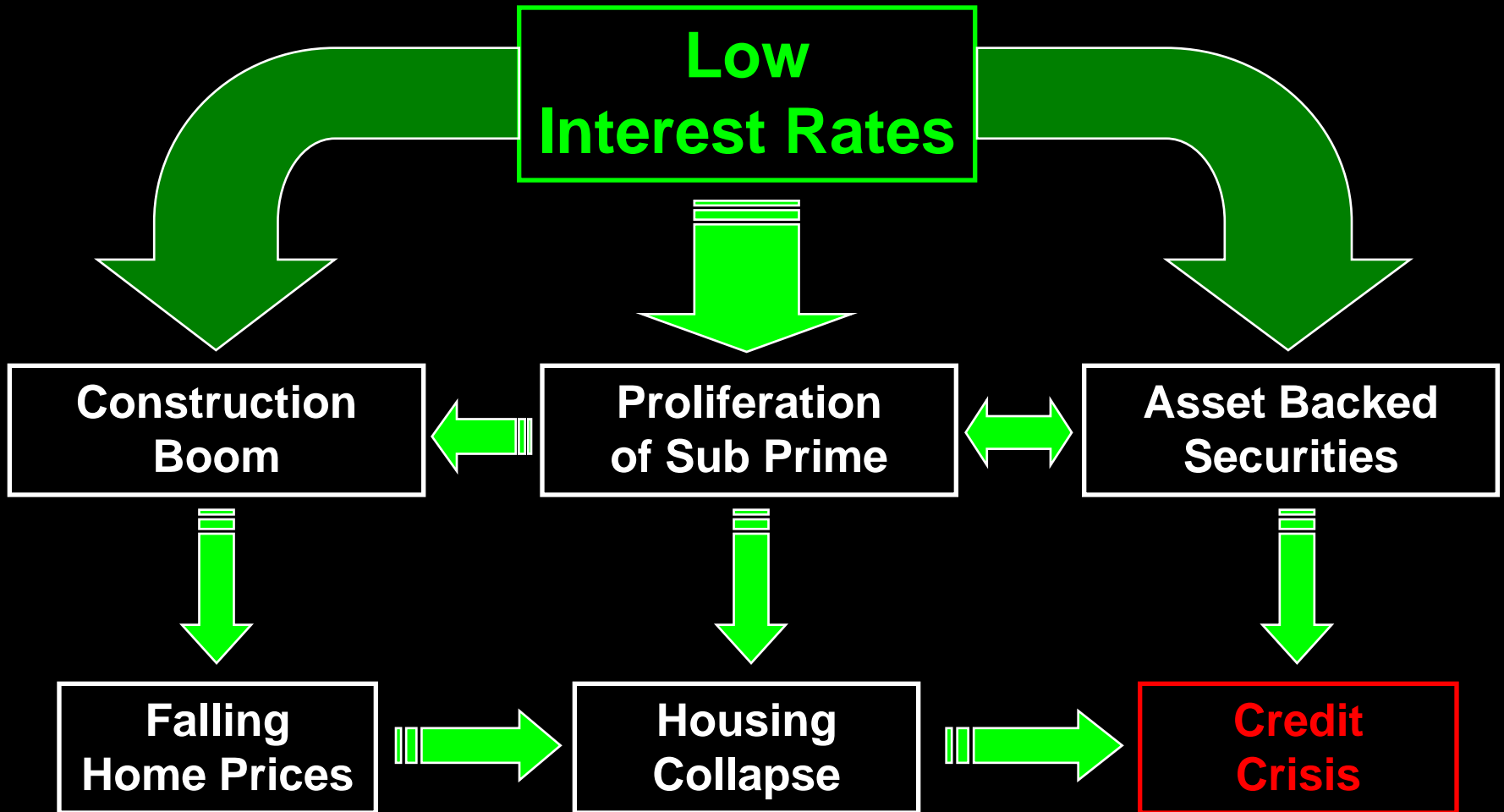
Commodity Research Bureau



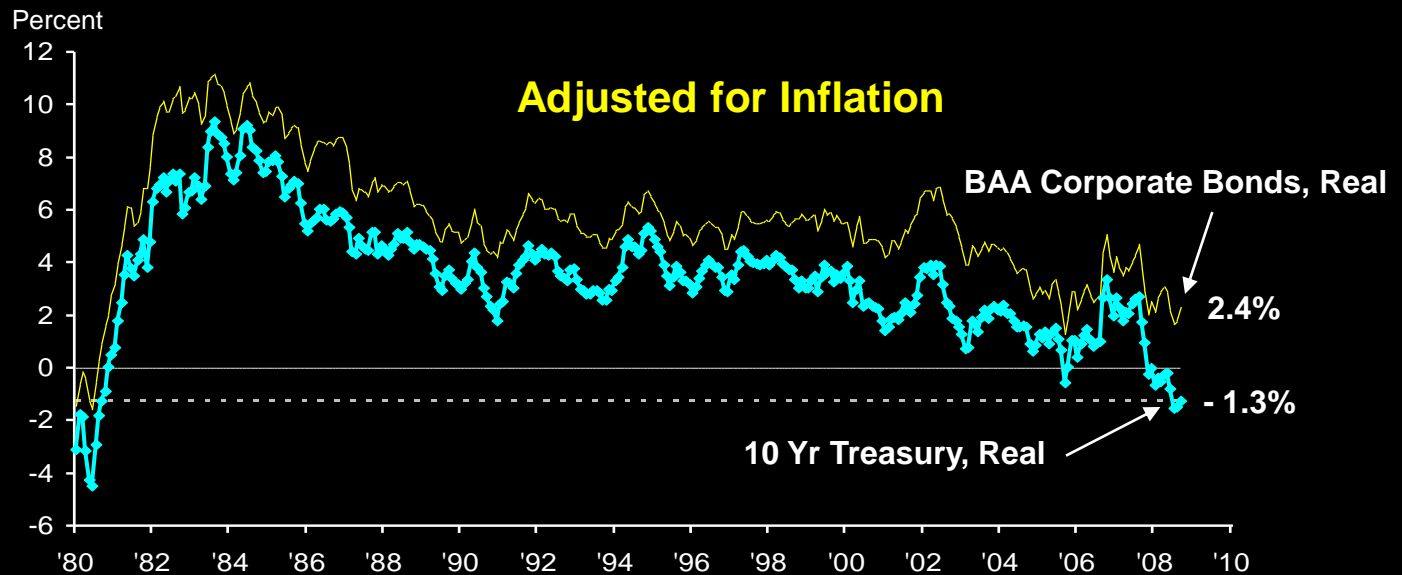
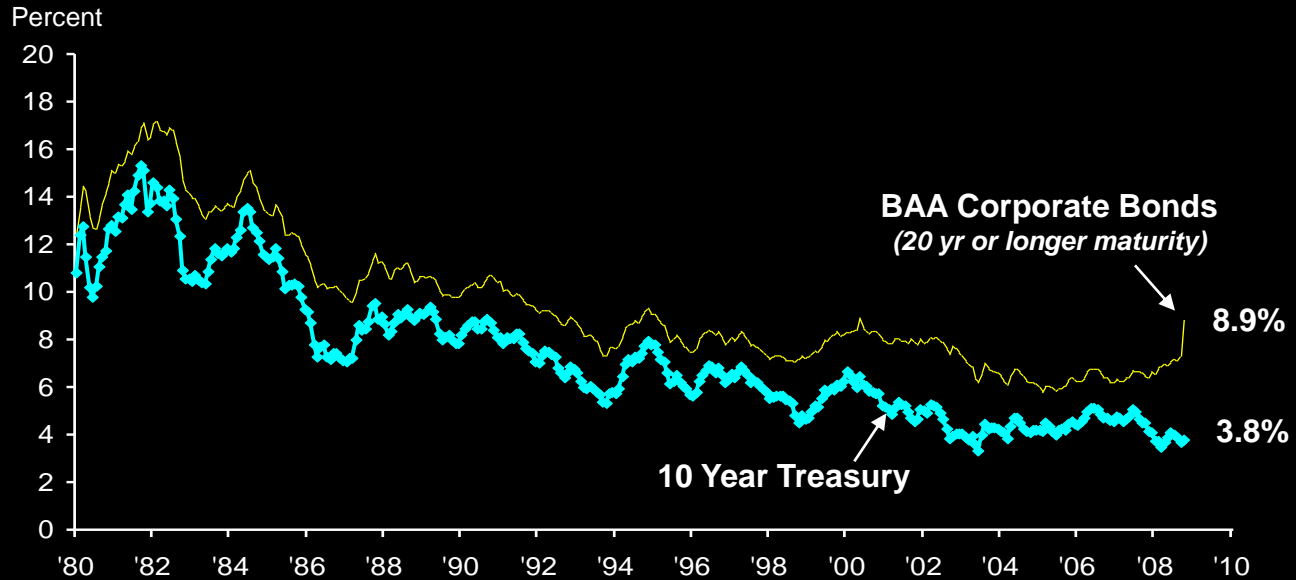
* Includes copper scrap, lead scrap, steel scrap, tin, and zinc.
** Includes copper scrap, lead scrap, steel scrap, tin, zinc, burlap, cotton, print cloth, wool tops, hides, rosin, rubber, and tallow.

Financial Crisis

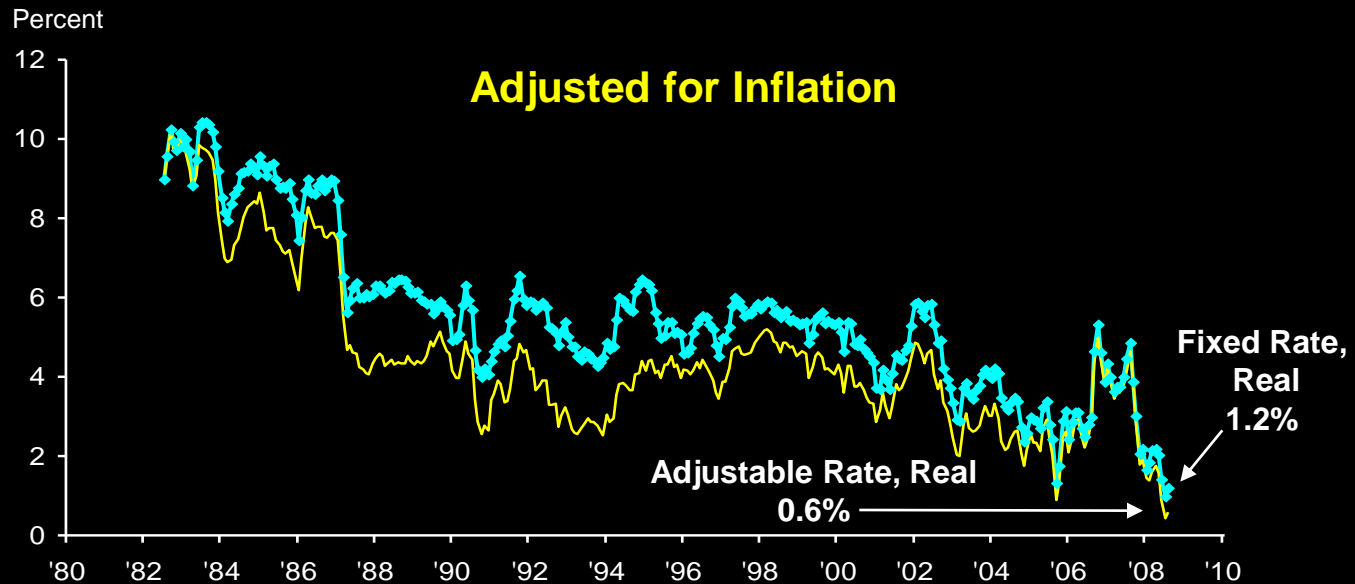
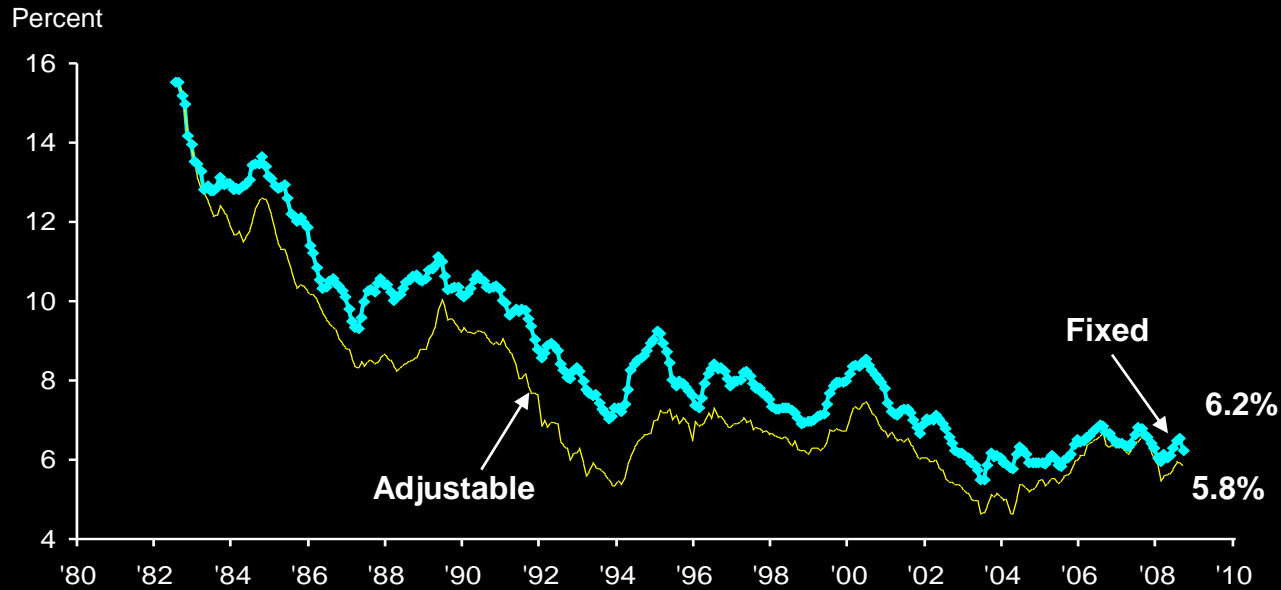
Evolution of Financial Crisis



Generation-Low Interest Rates



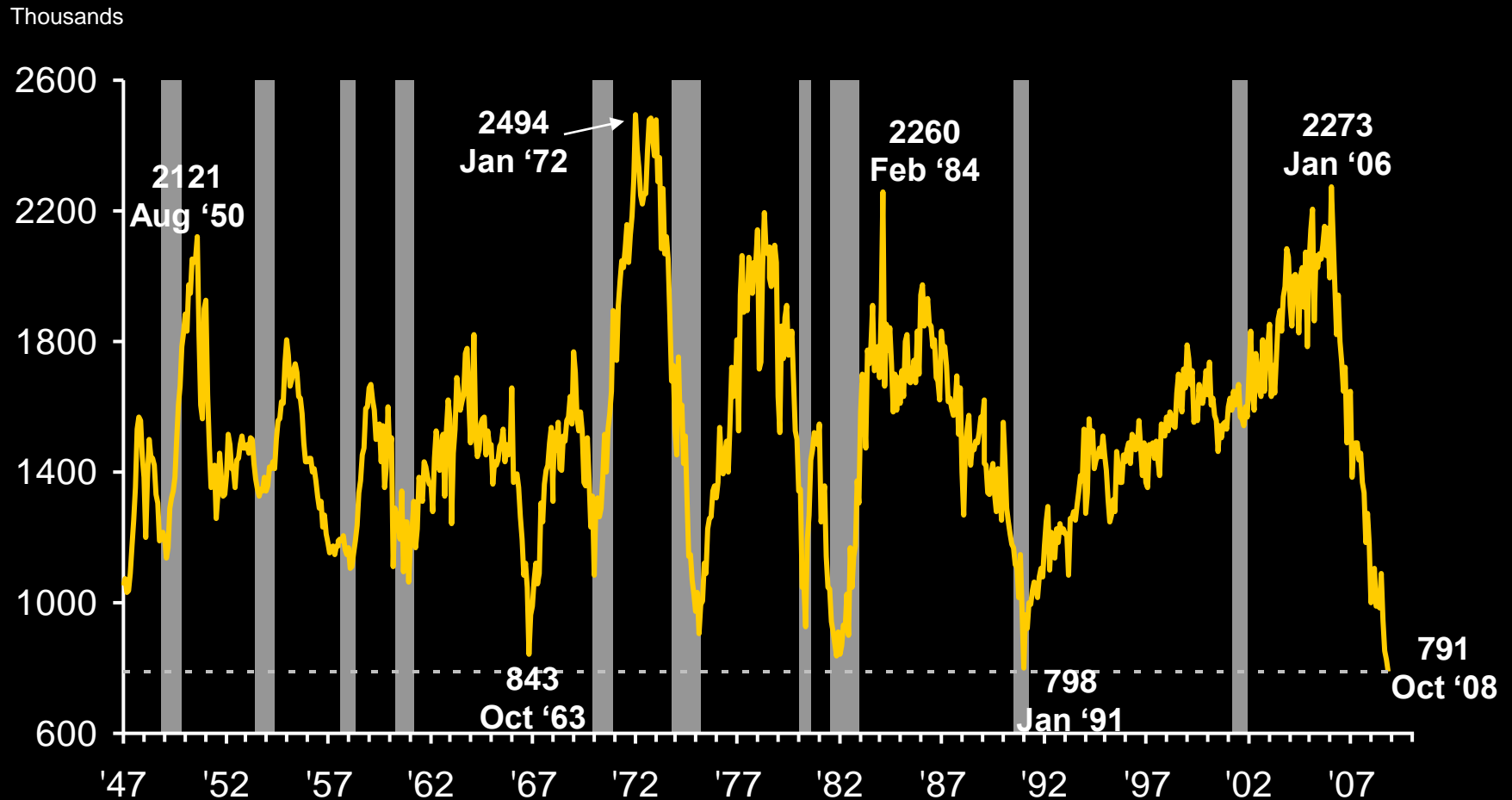
Mortgages Maintain Positive Real Return



Construction Boom

Housing Starts

New Housing Units

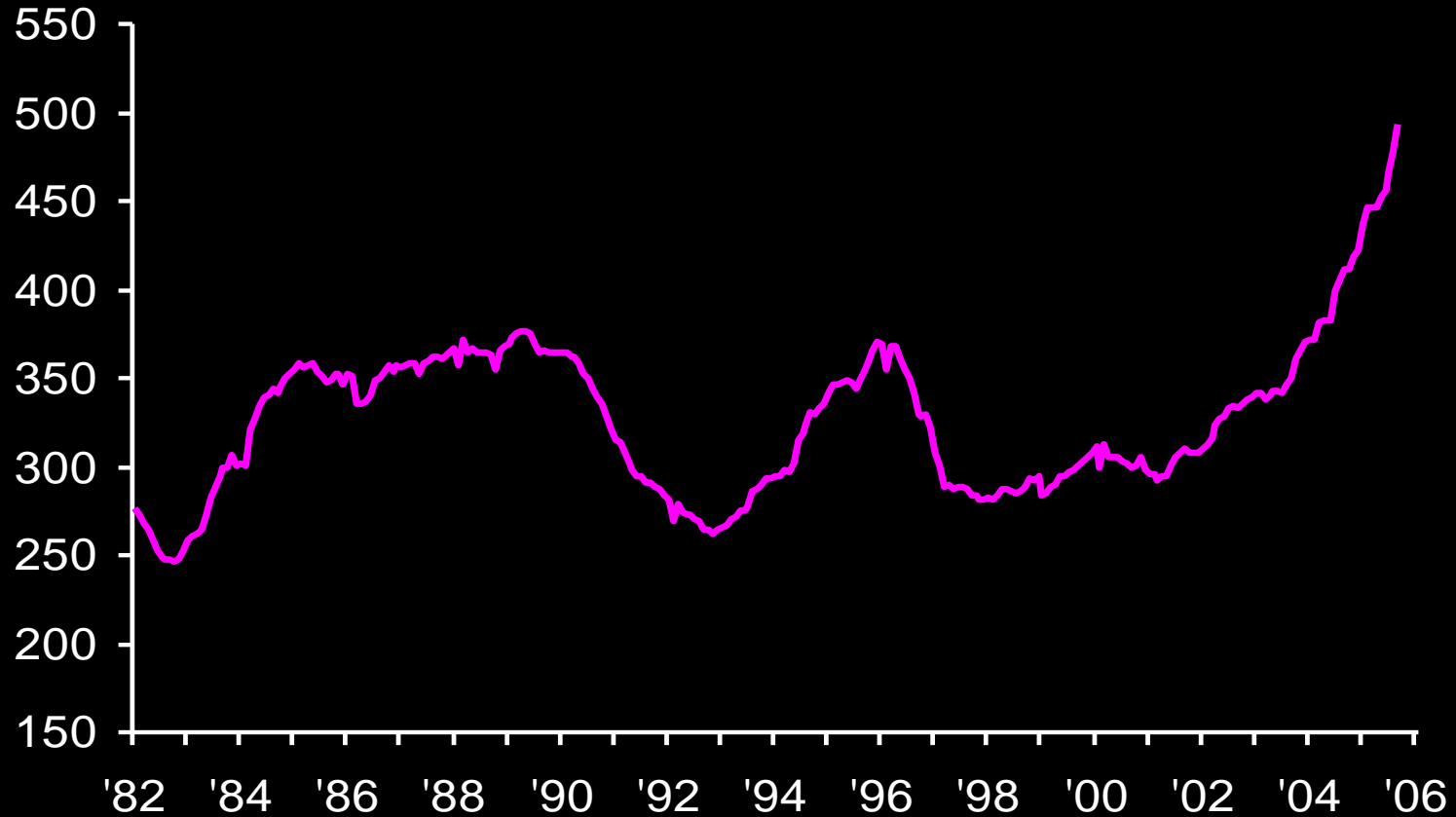


Backlog of Unsold Houses

Slide from Chrysler's 2005 Symposium Presentation

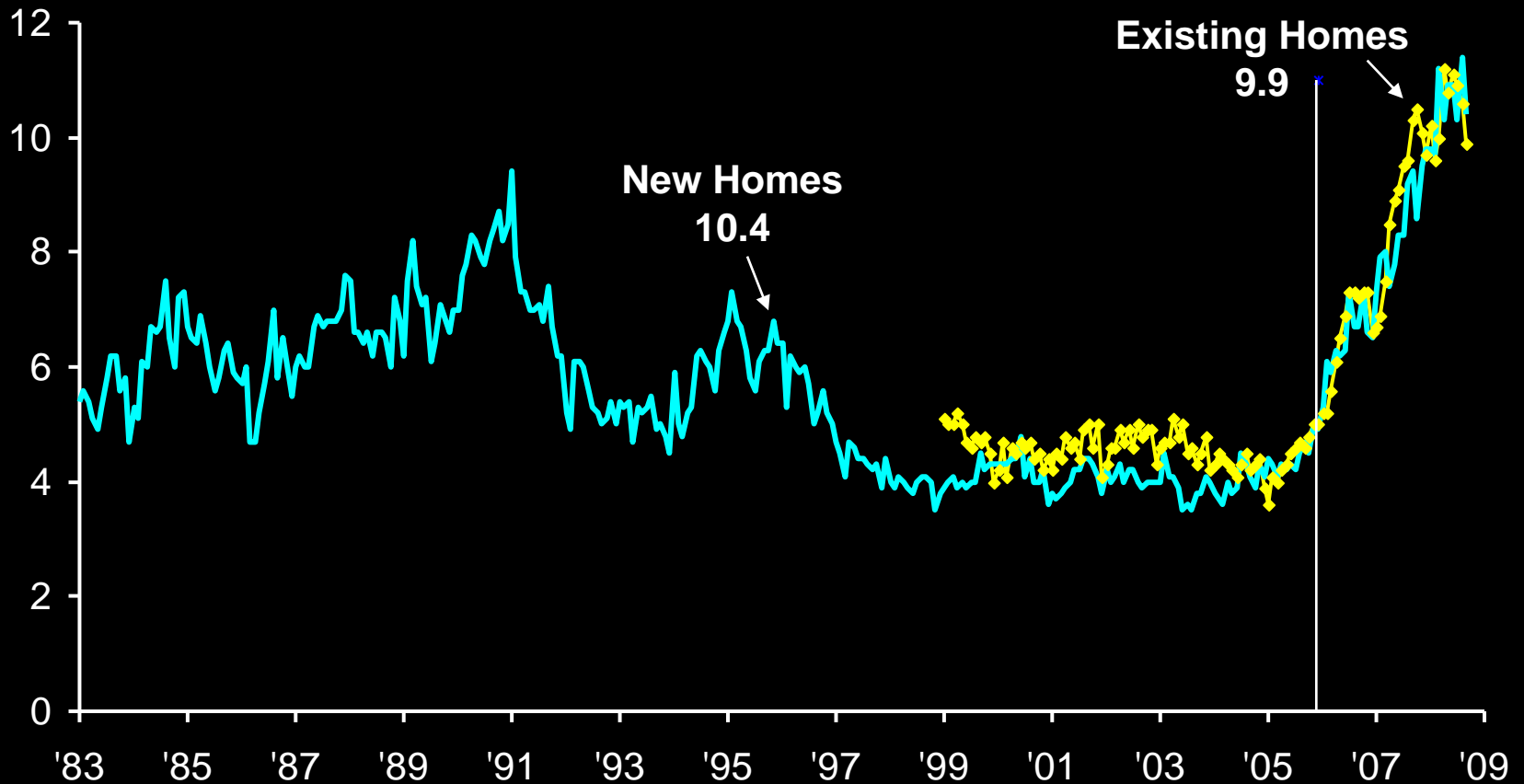
(New Houses for Sale)

Thousands of Units



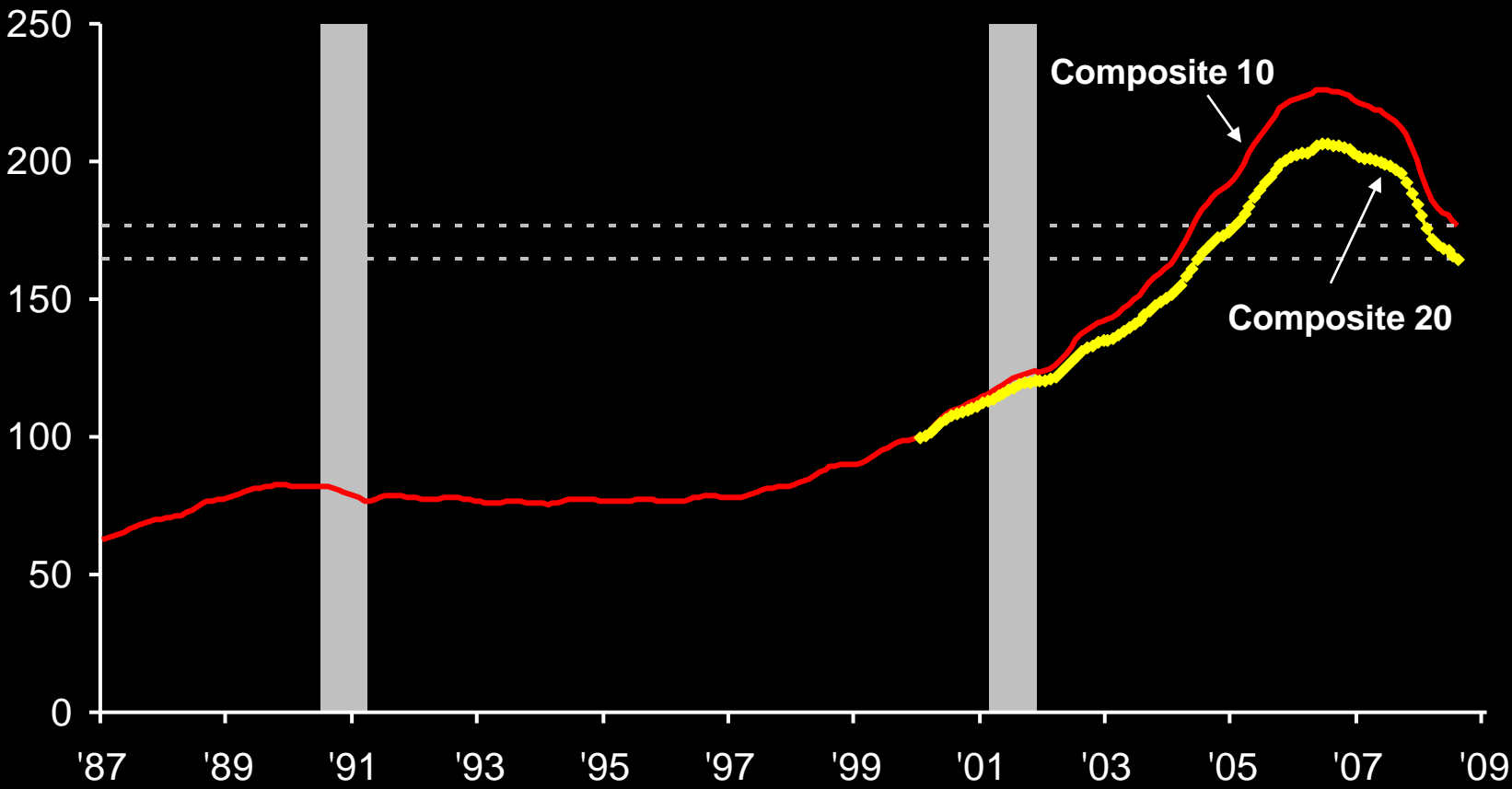
Home Sales Inventory

Months of Supply, SA



S&P/Case-Shiller Home Price Index

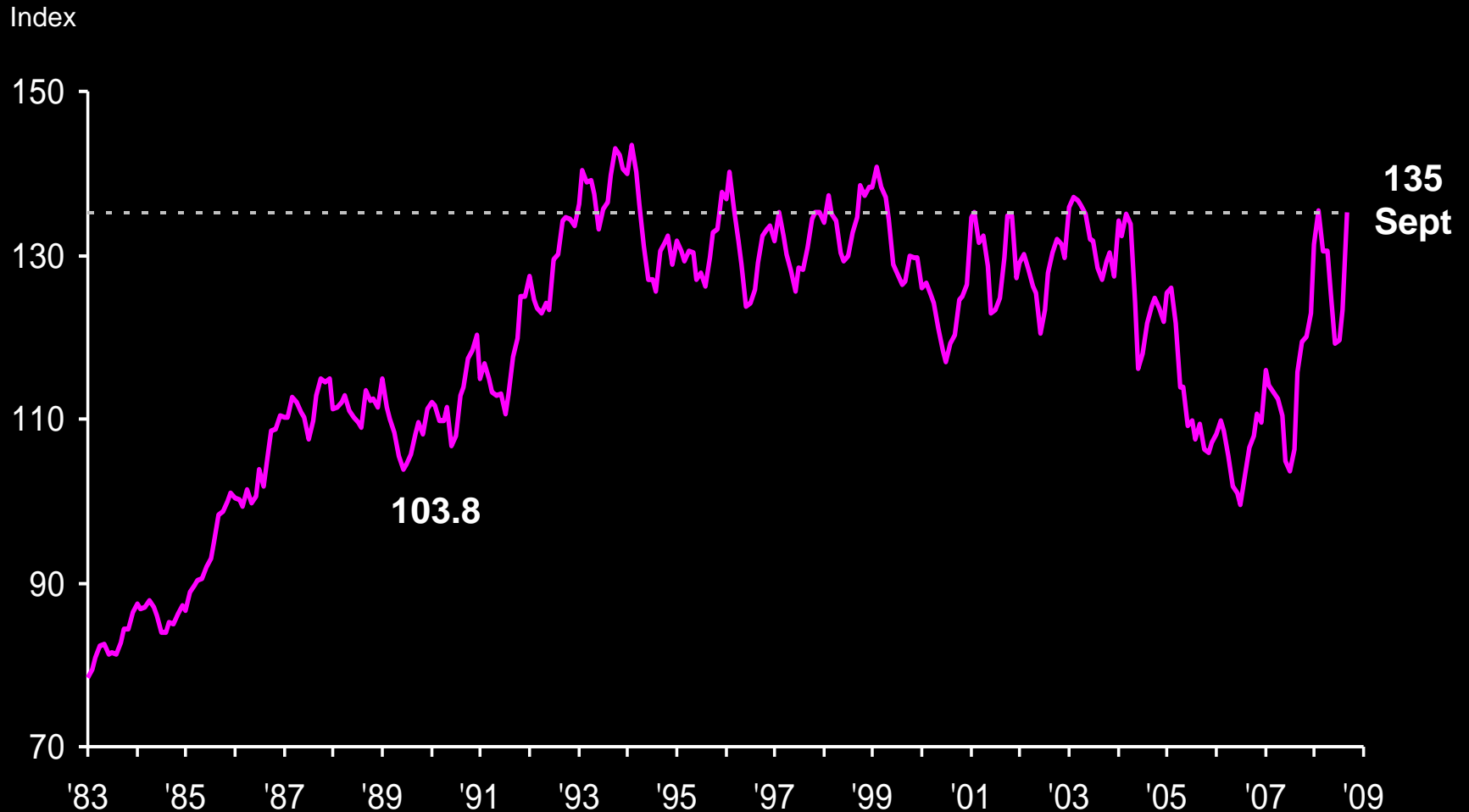
Index, NSA
Jan 2000=100



Real Estate Market

U.S. Housing Affordability Index

Existing Homes



Buying Conditions for Houses

During Next 12 Months

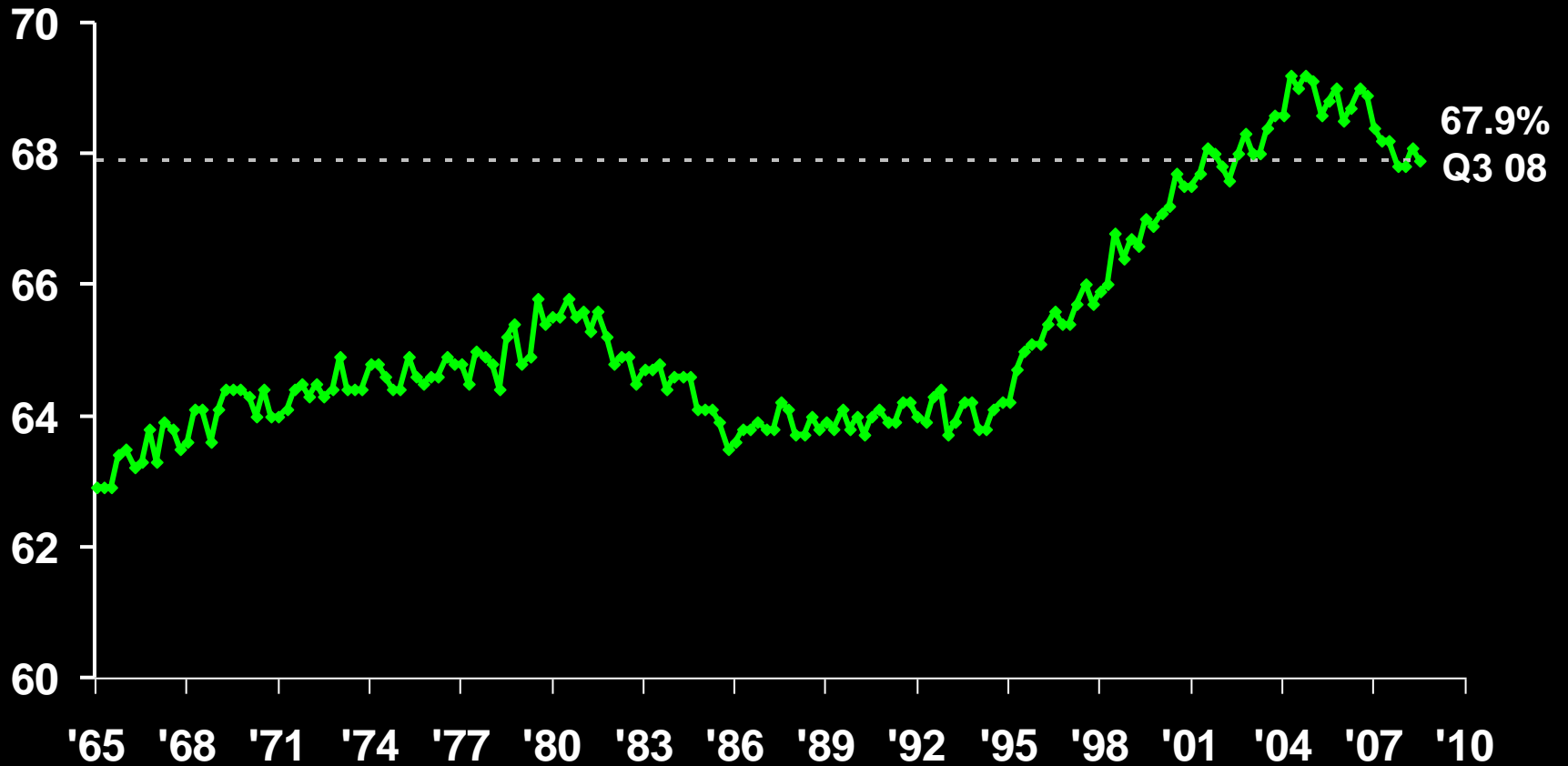
Index



Homeownership Rate

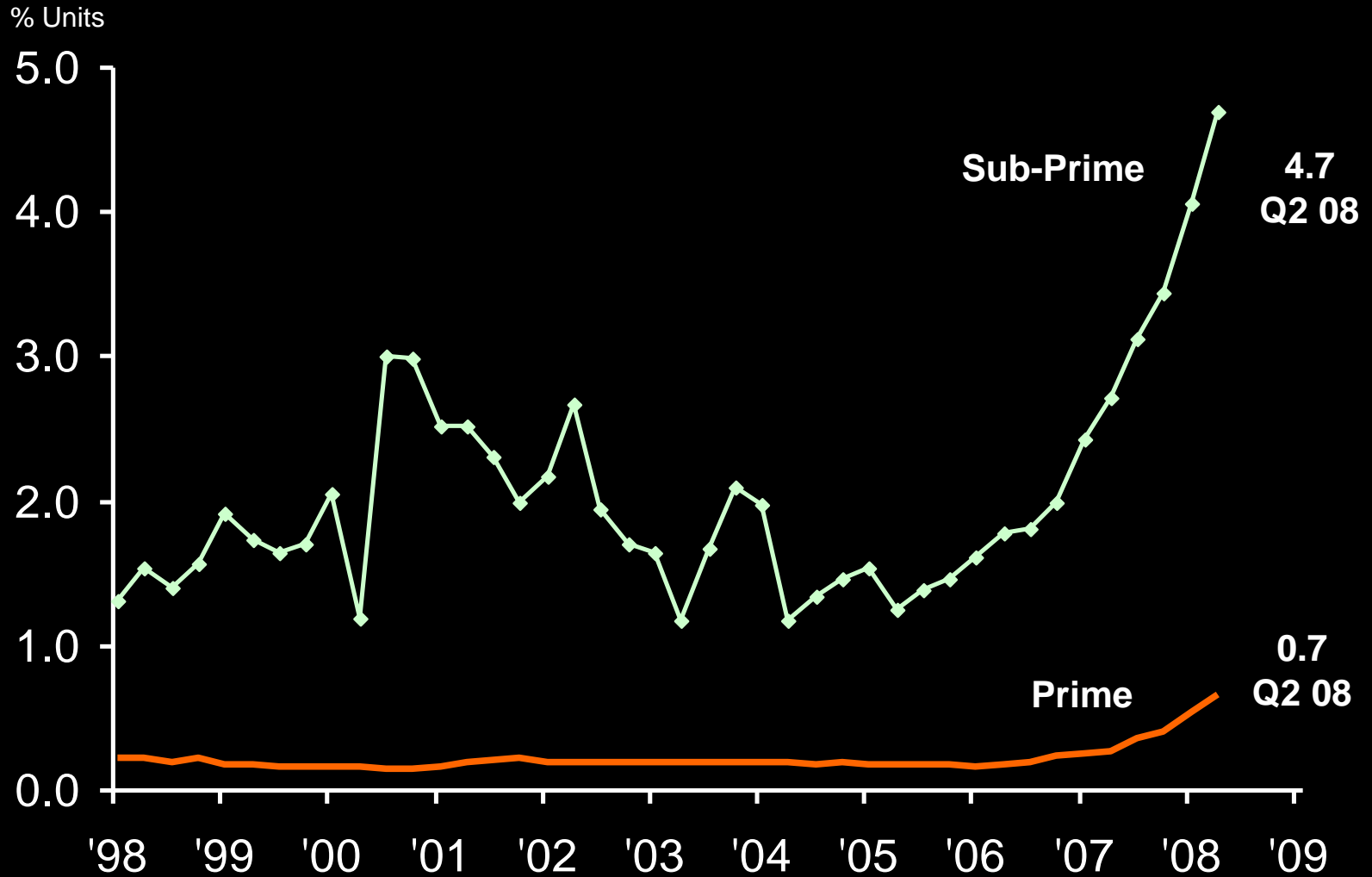
NSA

Percent



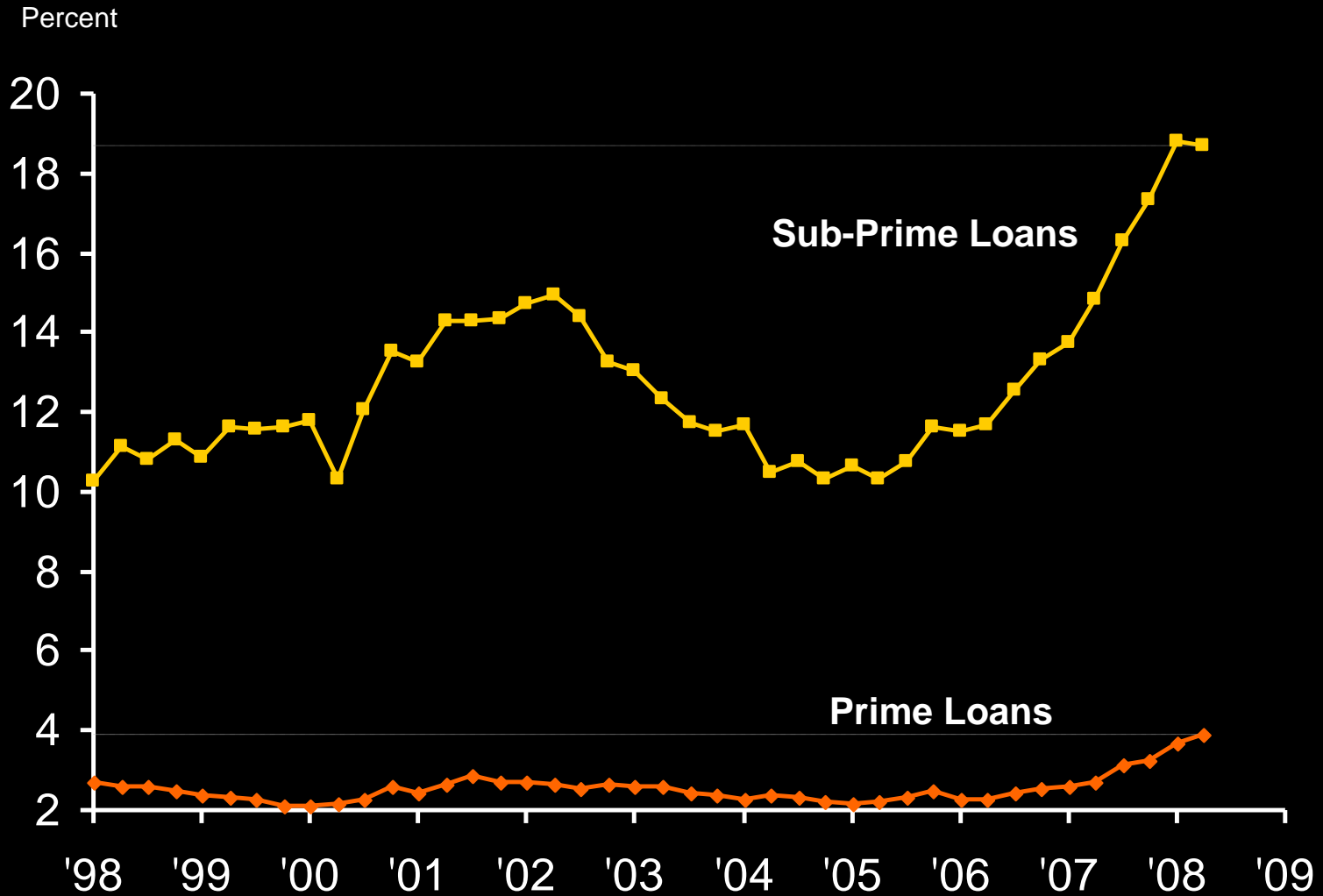
Foreclosures

Started During Quarter, SA



Mortgage Delinquencies

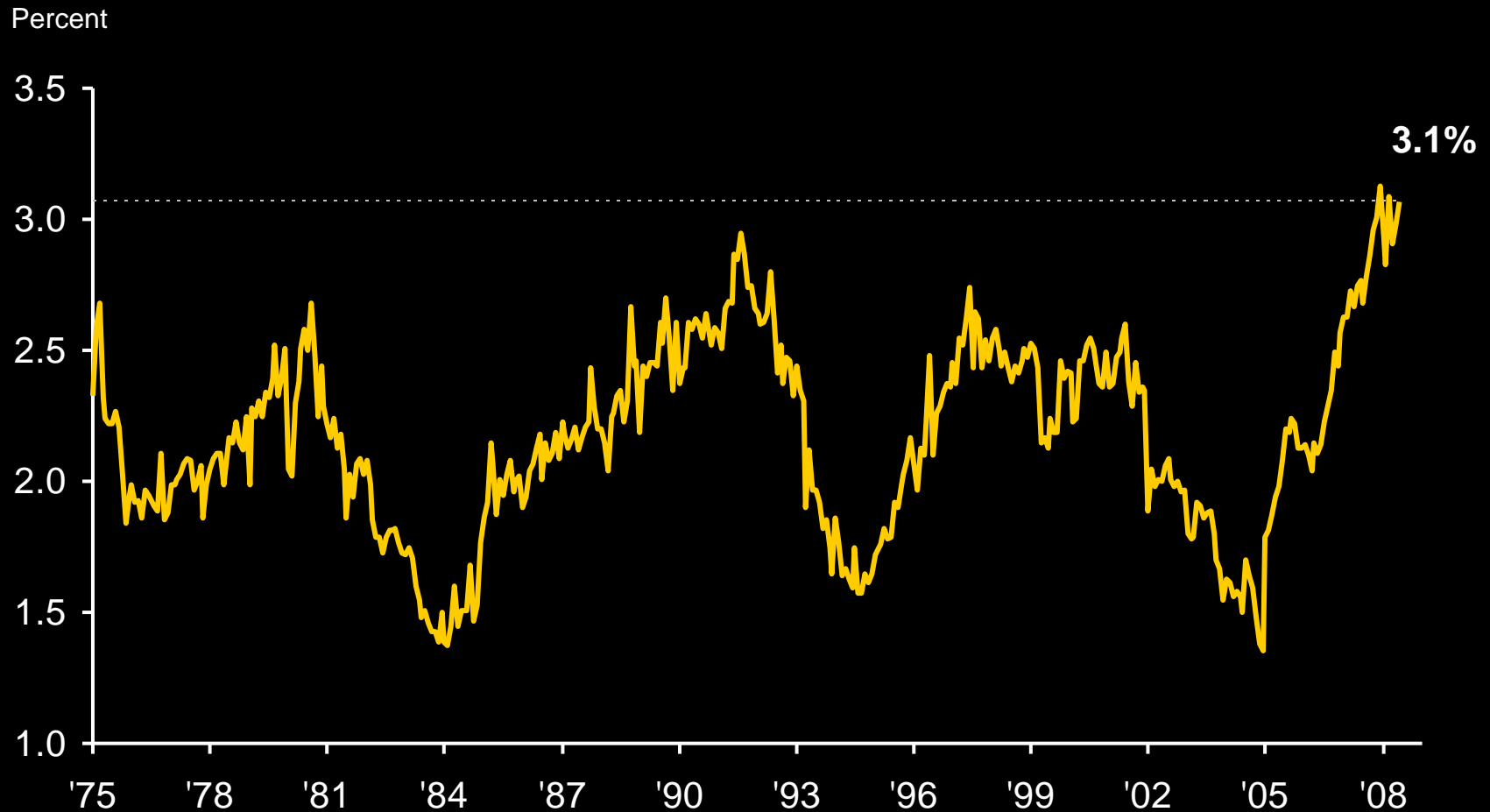
Total Loans with Installments Past Due, SA



Auto Industry

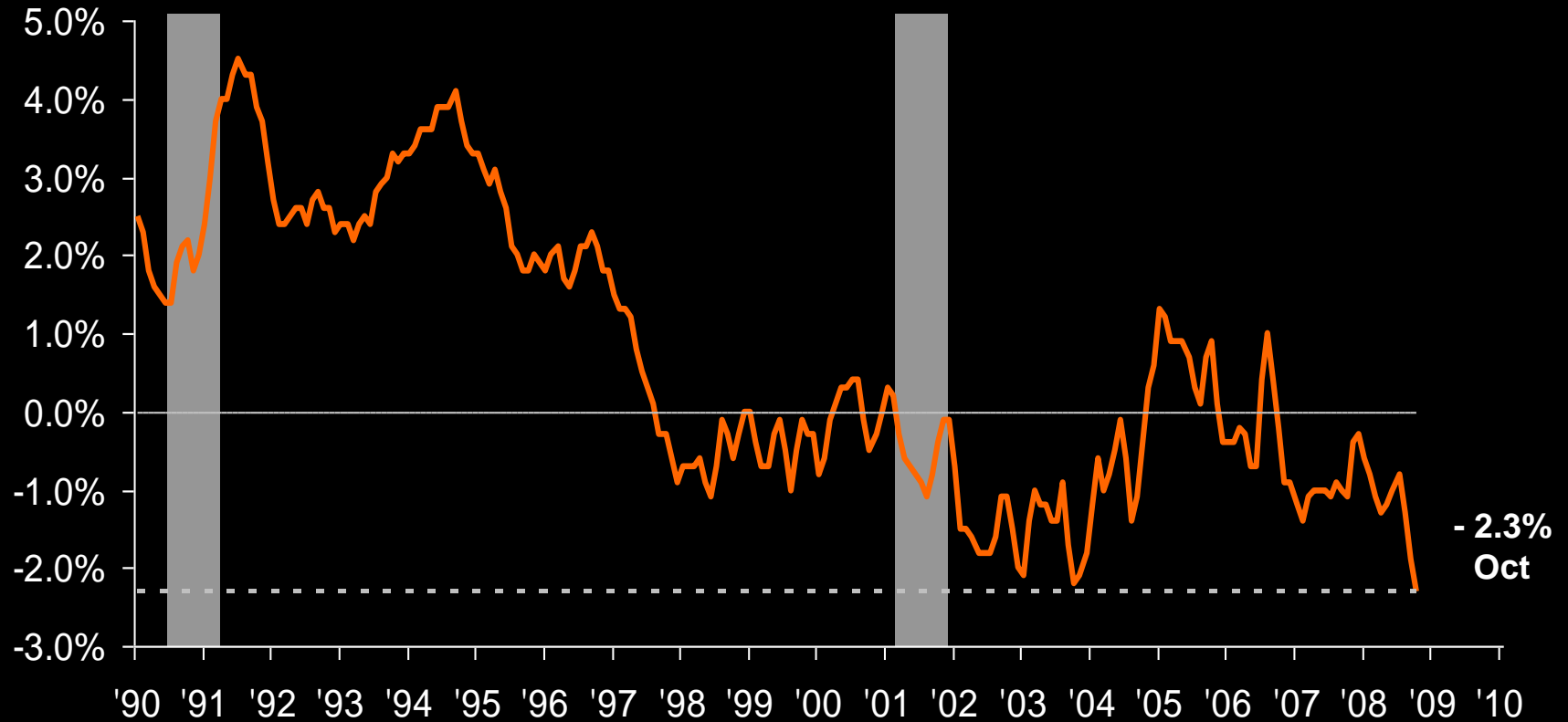
Auto Loans Past Due 30 Days or More

Indirect Loans, Closed-End



New Vehicle Consumer Prices

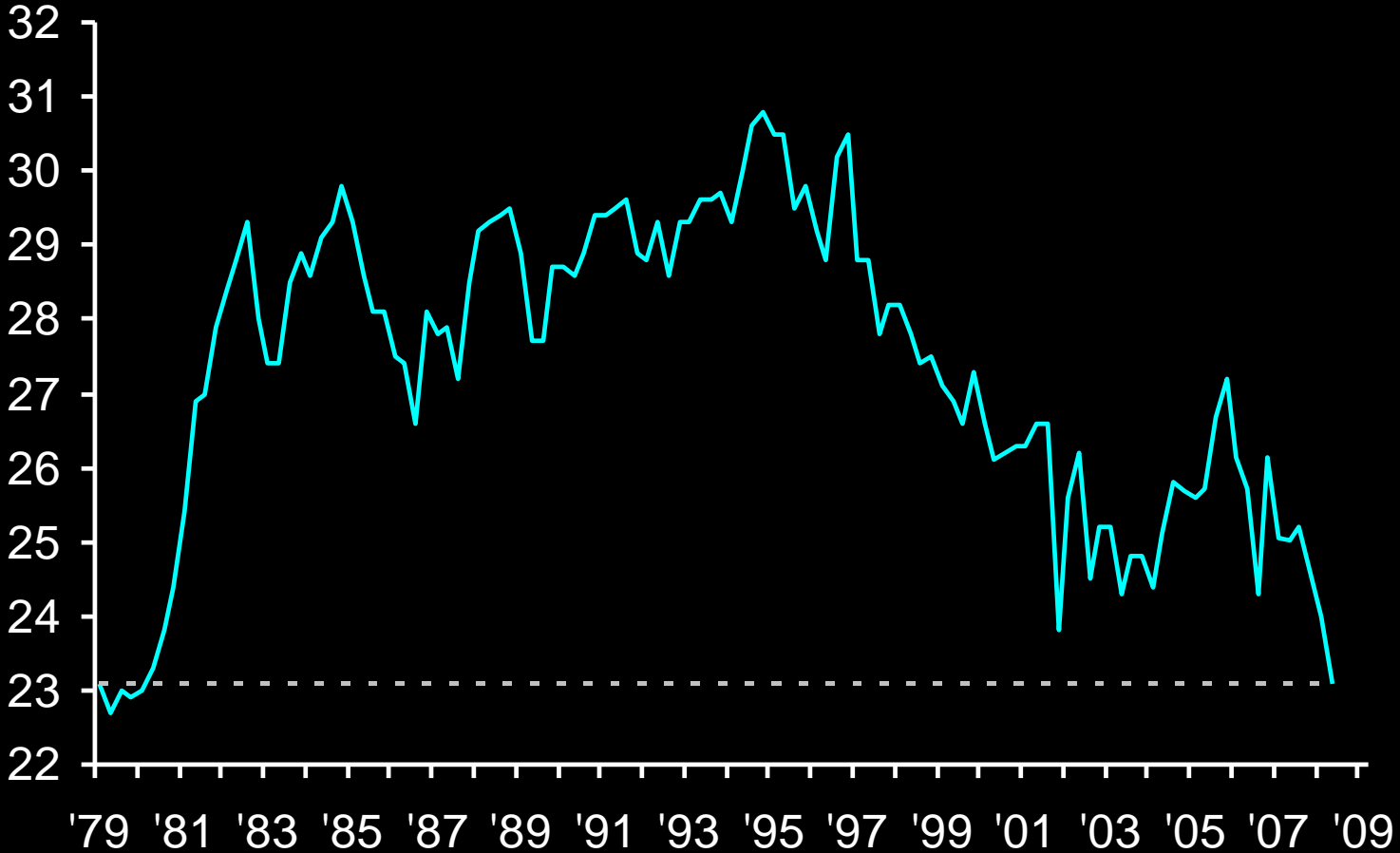
% Change
Year/Year



Monthly Data

Auto Affordability

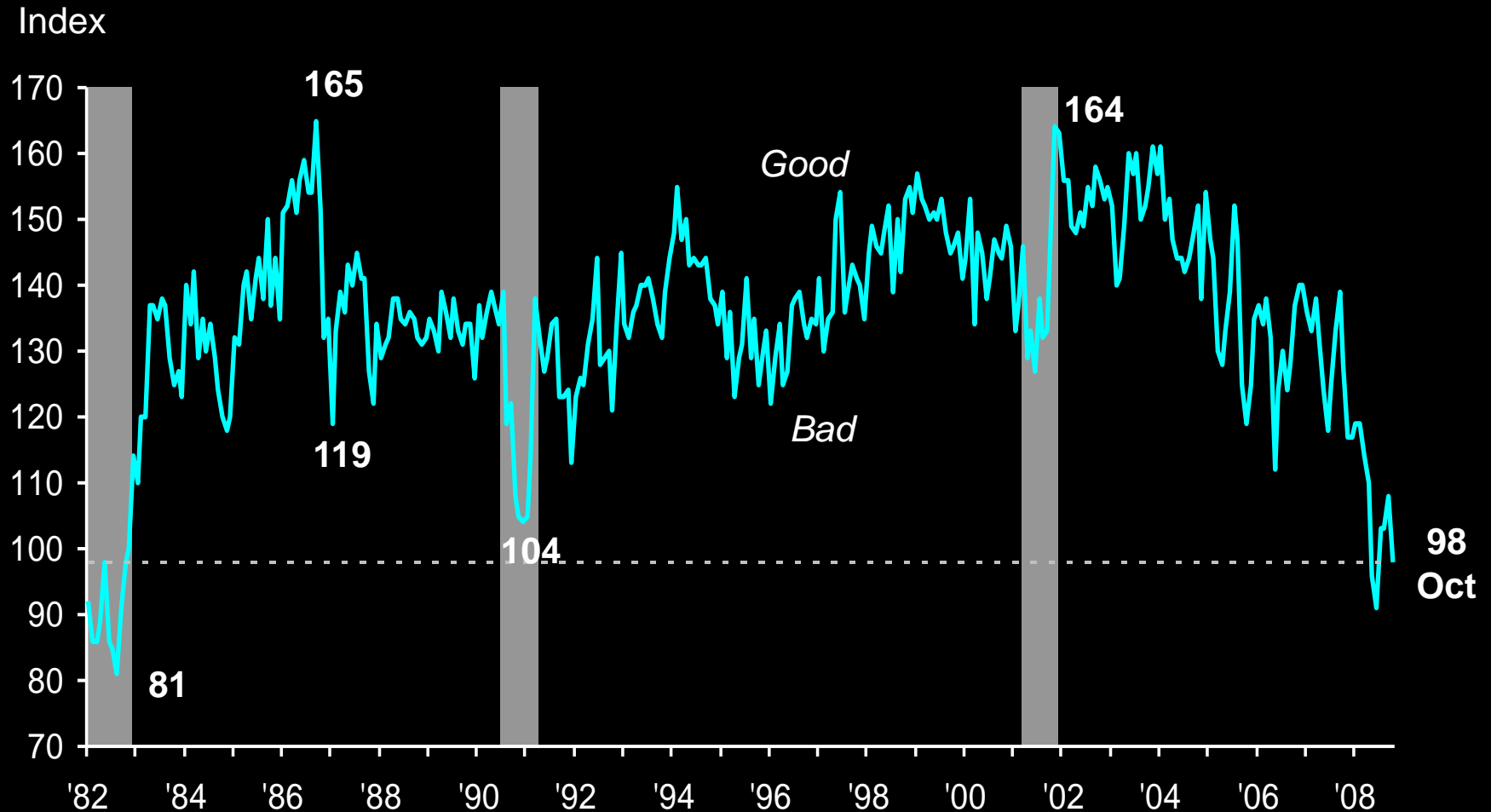
Weeks of Median
Income



23.1
2nd Qtr

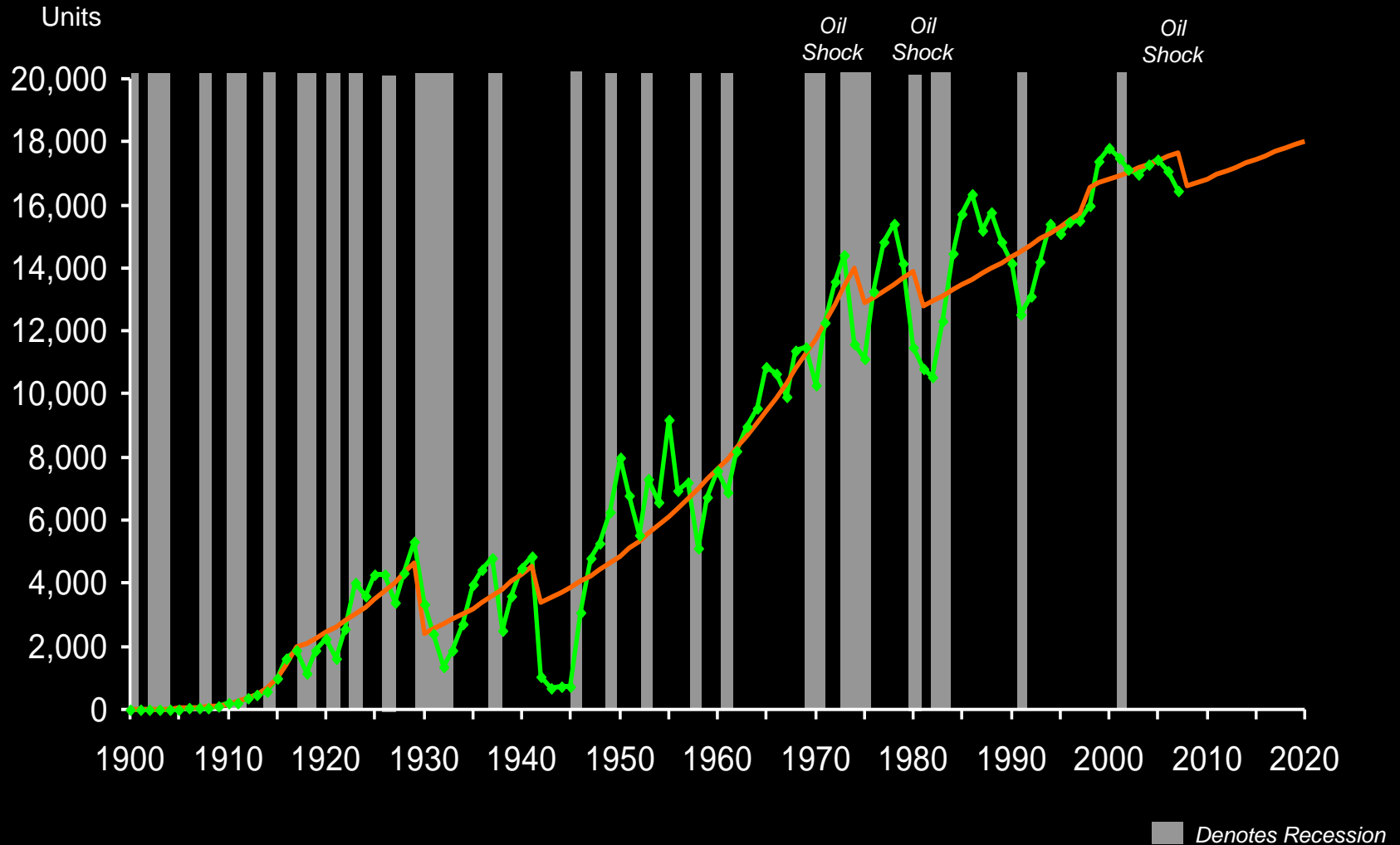
Buying Conditions for Vehicles

During Next 12 Months



U.S. Auto Industry

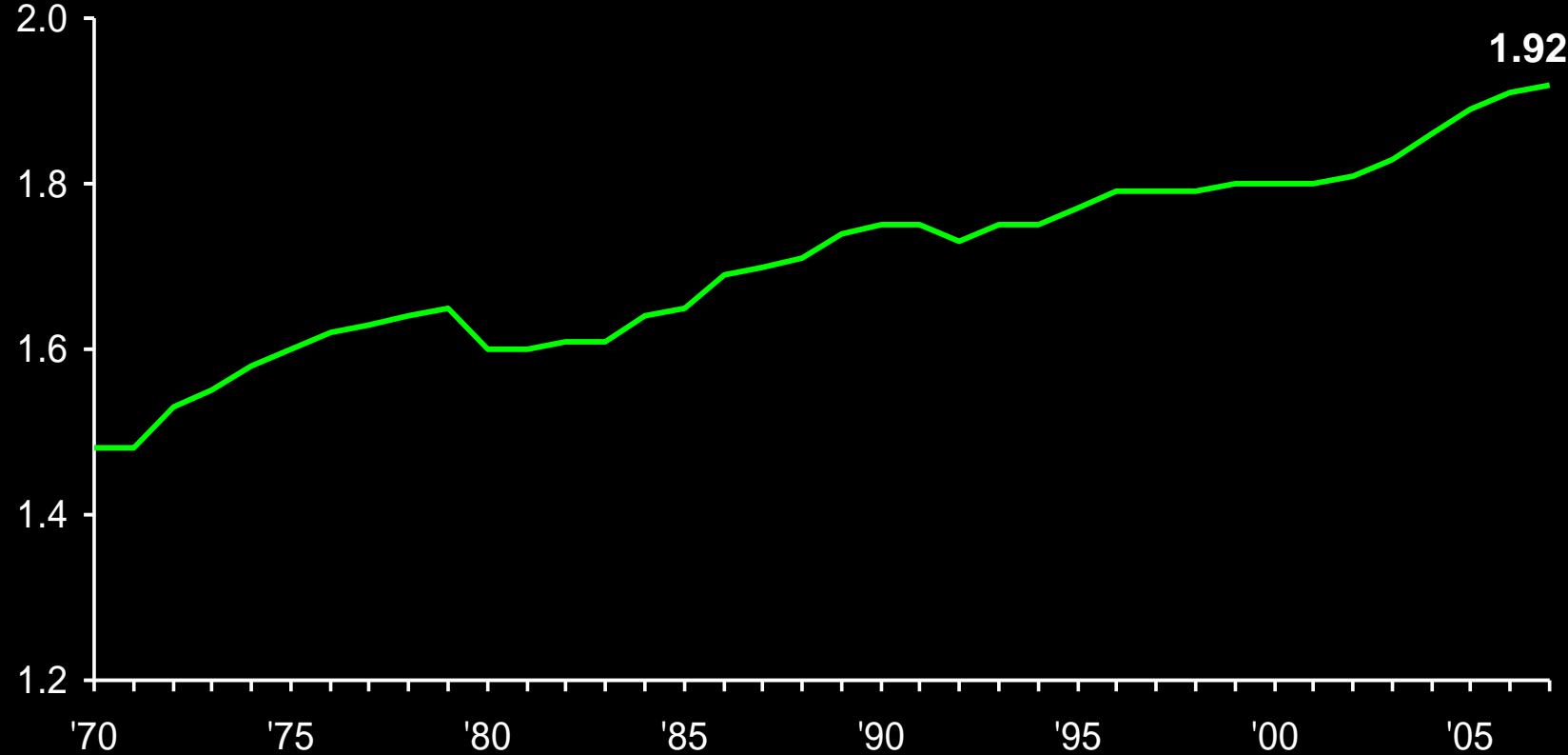
Long Term Trend Analysis



Vehicles per Household

United States

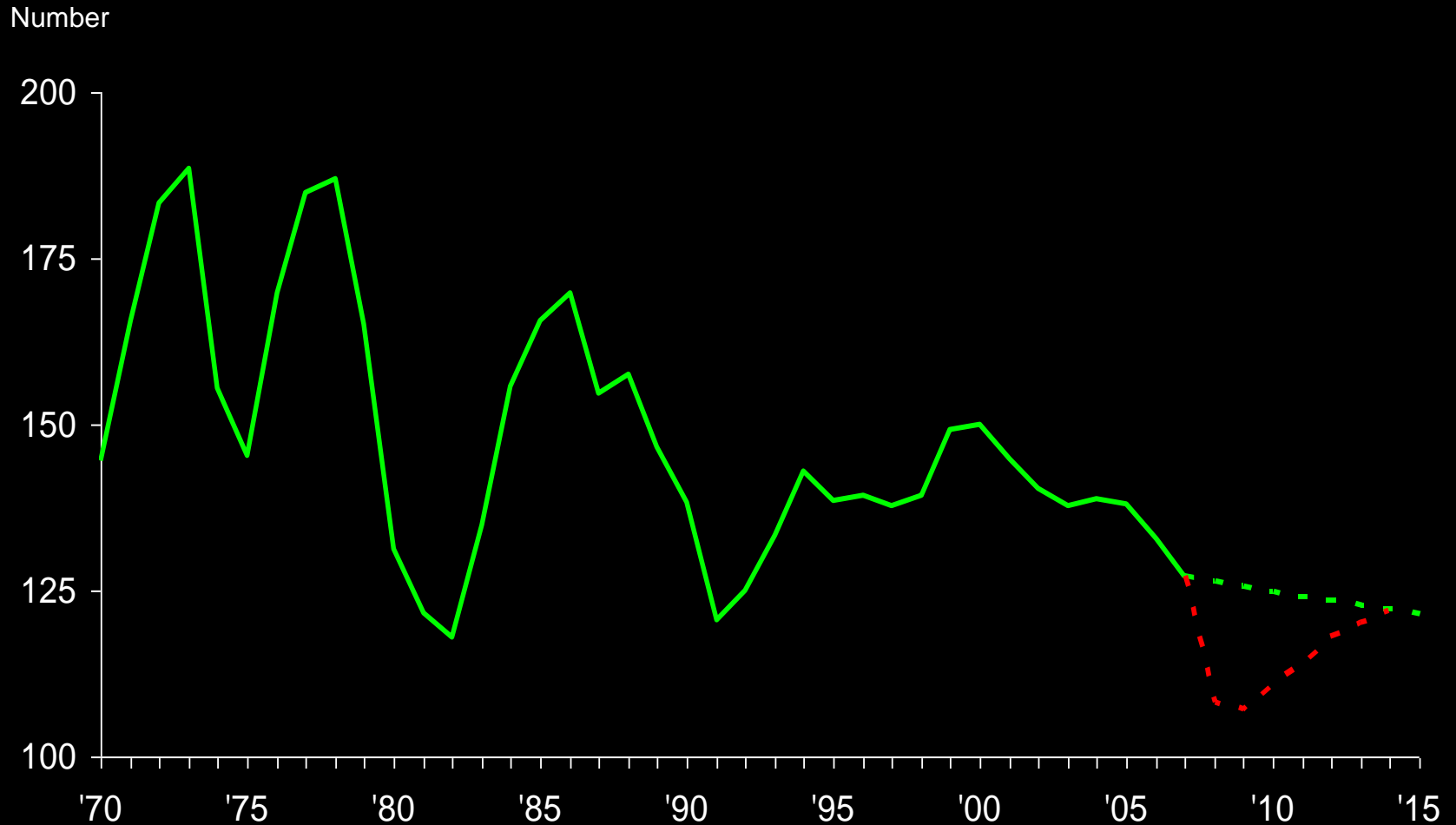
Number



Actual

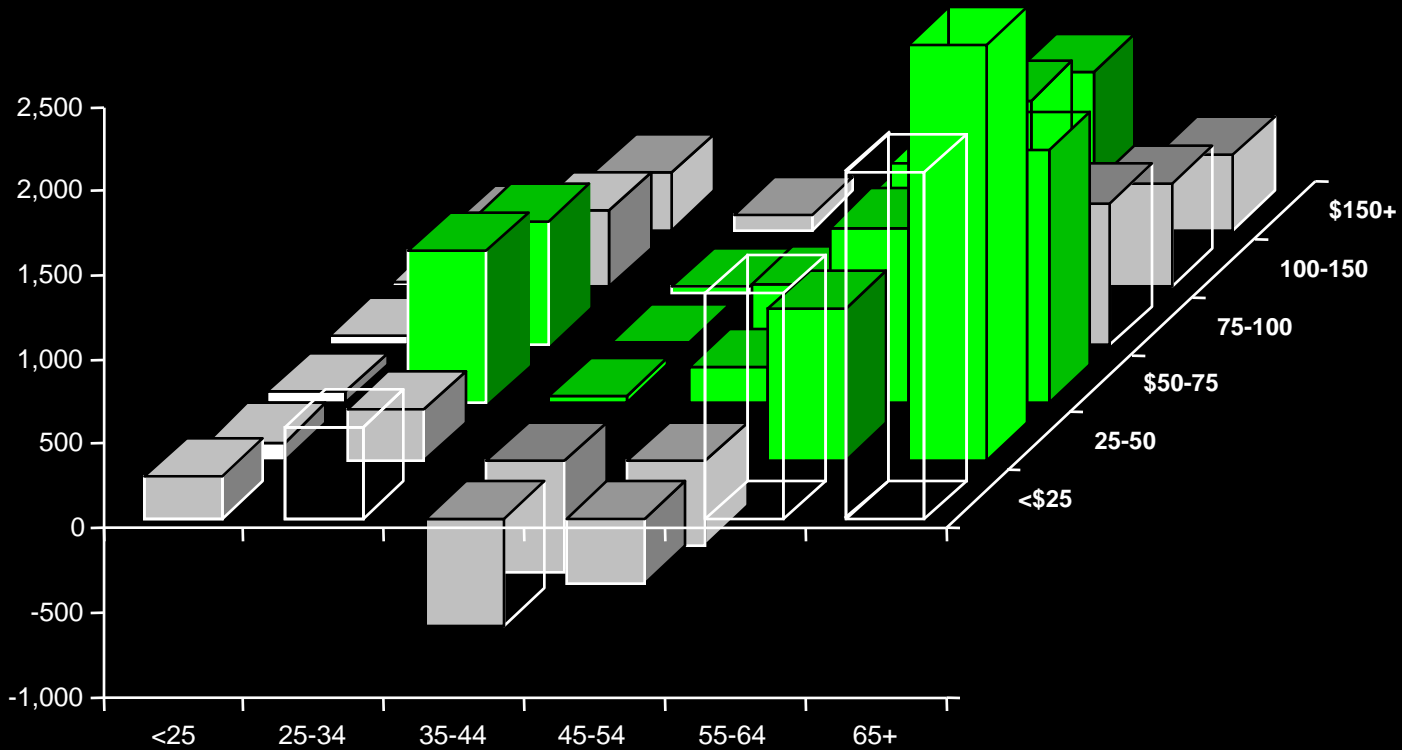
Demographic Decline in Sales

Number of Vehicles Sold per Year per 1000 Households



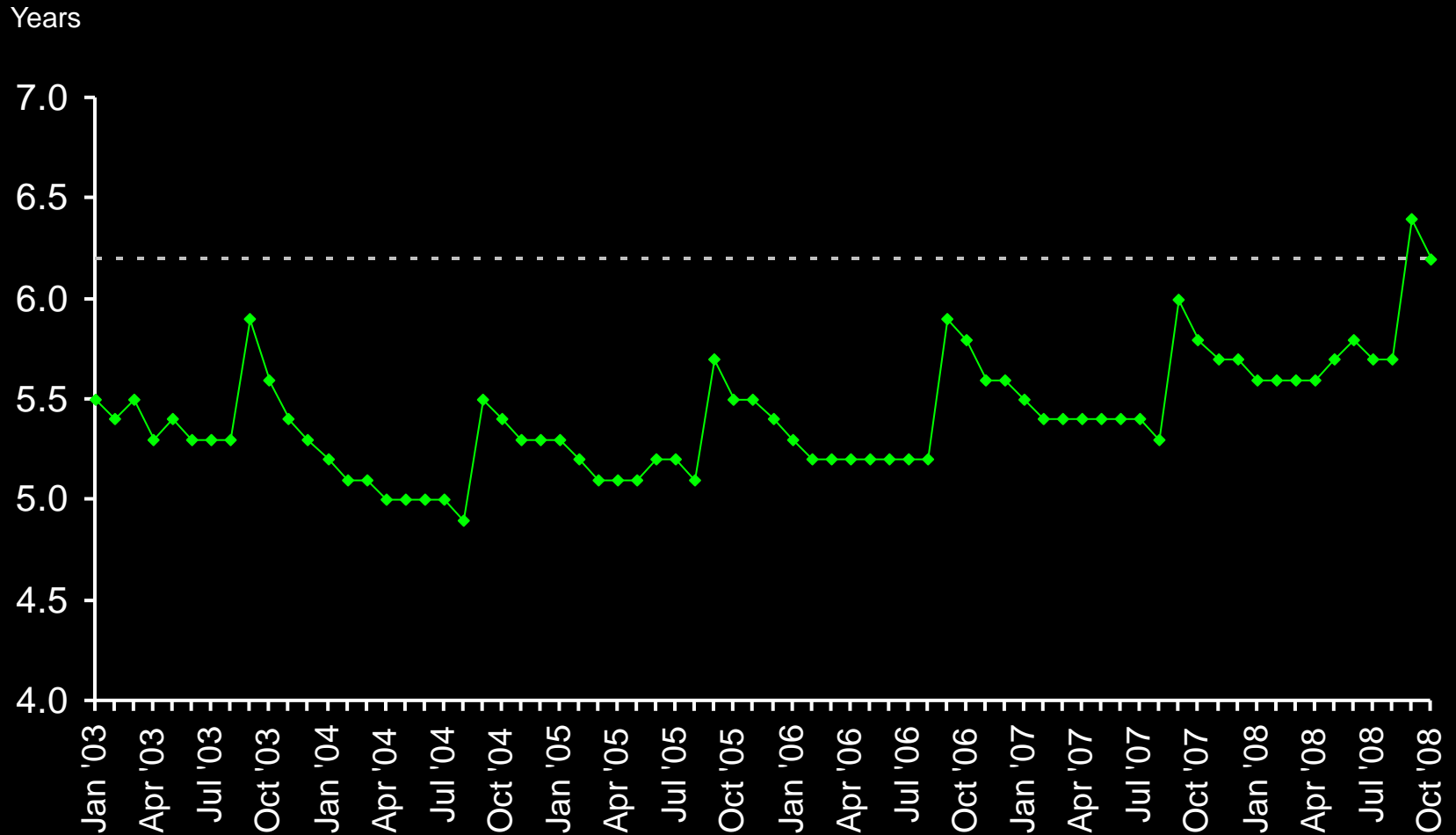
Strong Growth in New Car Buying Households

Change in Number of Households, 2006 to 2016



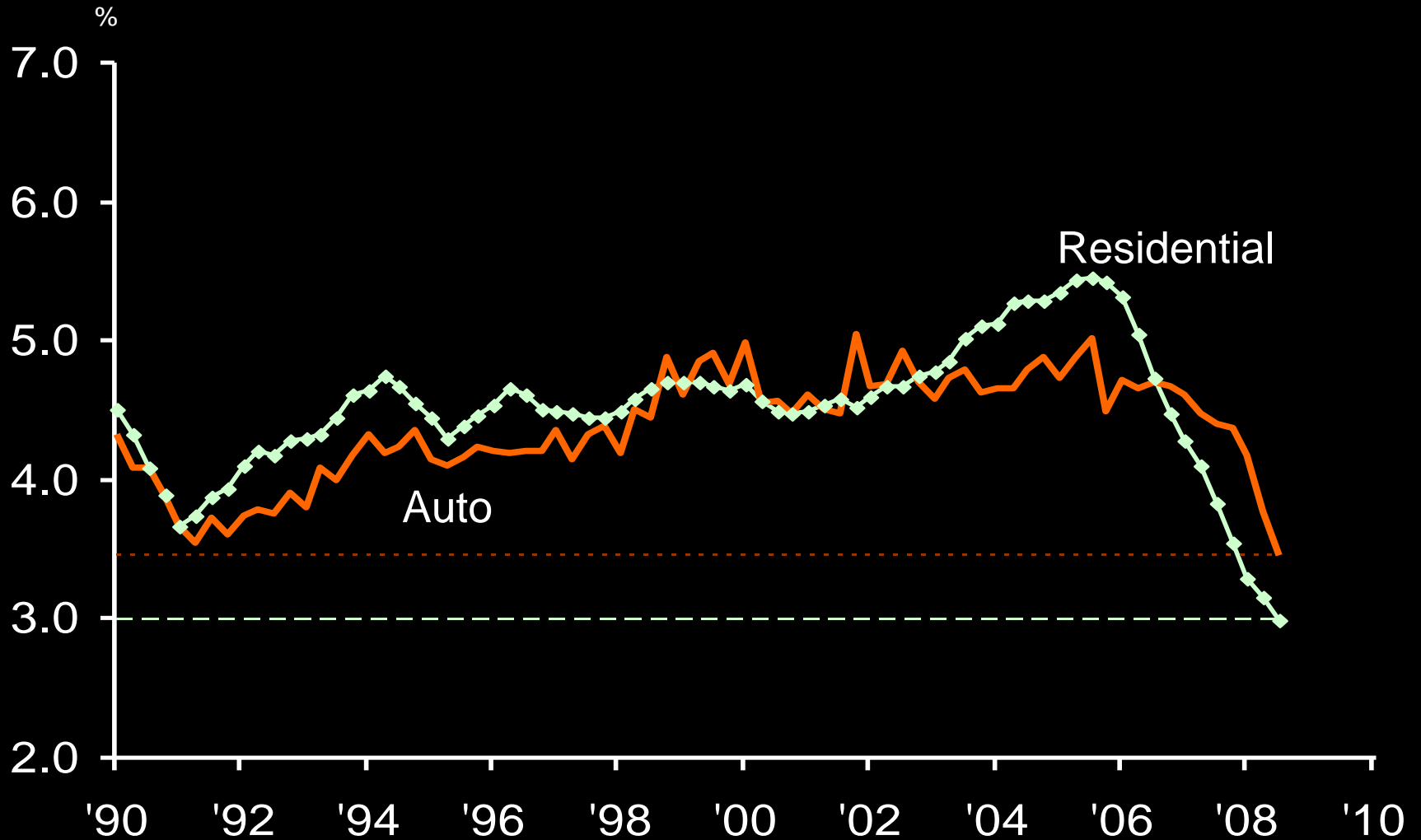
Note: Highlighted boxes are 70% of new vehicle sales.

Trade in Vehicle Age



Residential and Auto Investment

Share of Real GDP



U.S. Auto Industry

Number of Vehicles per Year

