



# **Automotive Industry Outlook**

**Federal Reserve Bank of Chicago**

**12<sup>th</sup> Annual Automotive Outlook Symposium**

**June 3, 2005**

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**Chief Economist**

# Topics Today

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- **Fundamentals for Vehicle Buying**
- **Housing and Autos Decoupled**
- **Vehicle Stock and Scrappage Rates**
- **Outlook Summary**

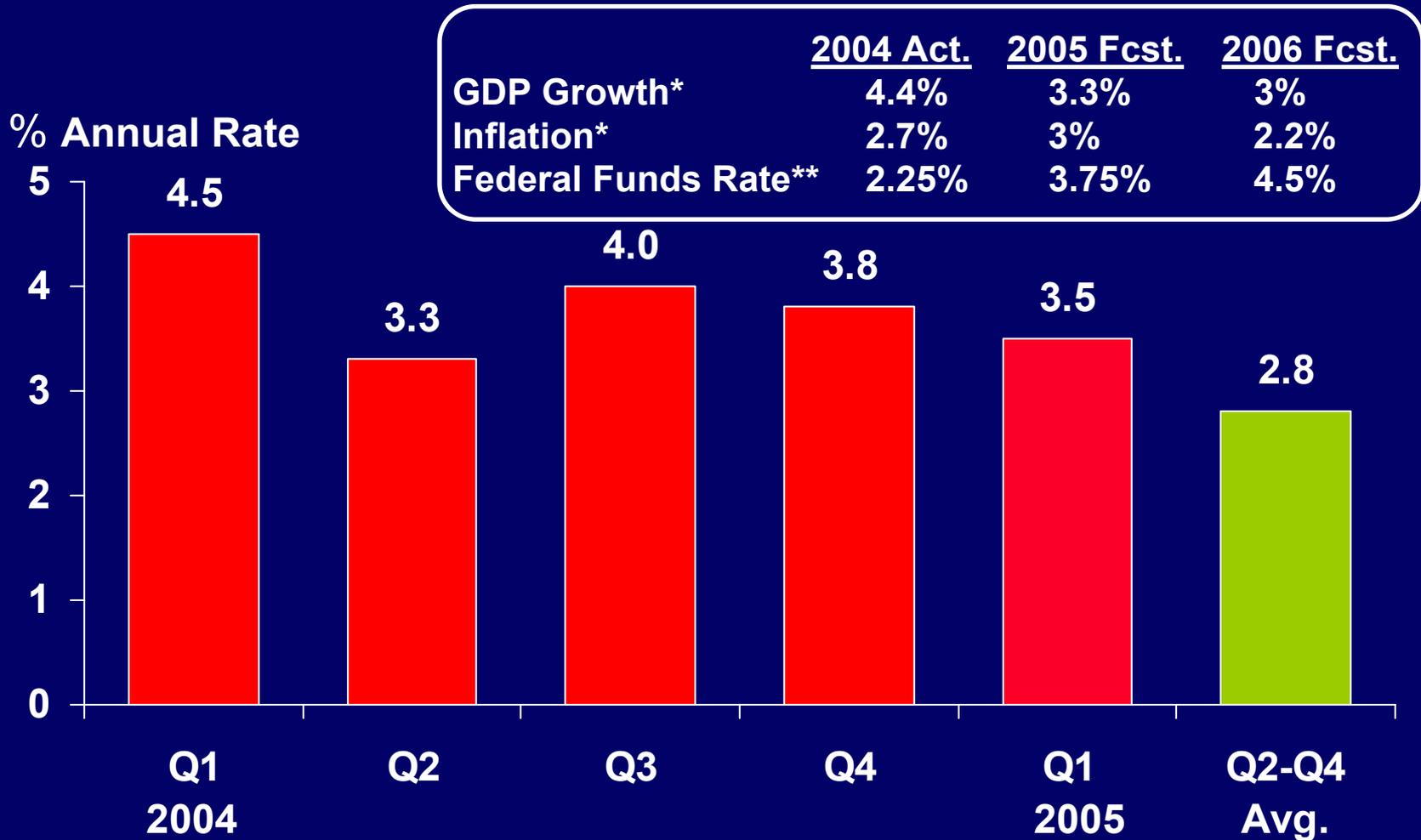
# Vehicle Buying Fundamentals

# Key Points

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- **Most Factors are Positive for Vehicle Buying**
  - **Income Growth at 3+%**
  - **Attractive Values for Buyers**
  - **Interest Rates are Low**
- **Gas Prices are a Negative**

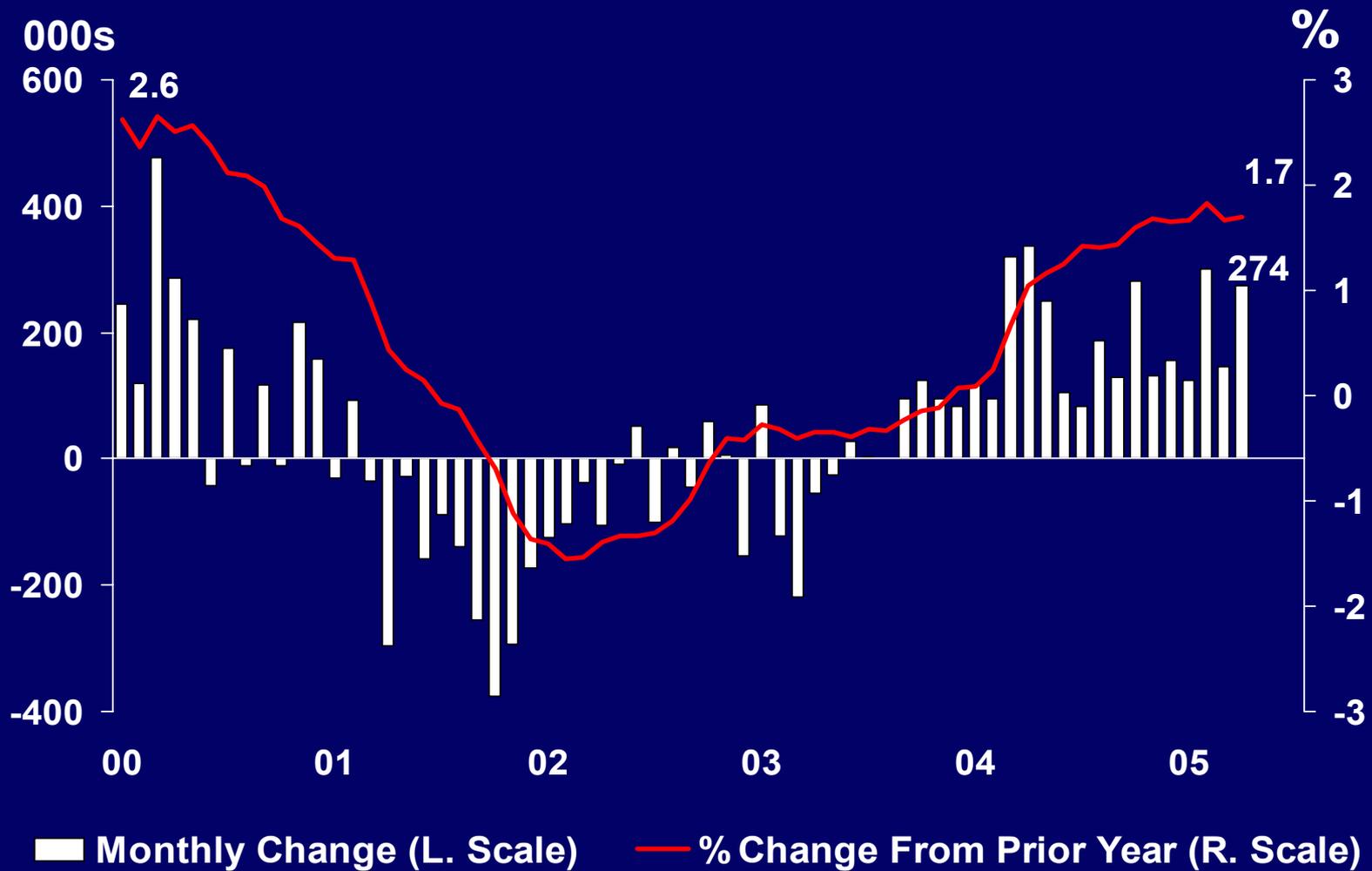
# U.S. GDP Growth



\* % Change From Prior Year

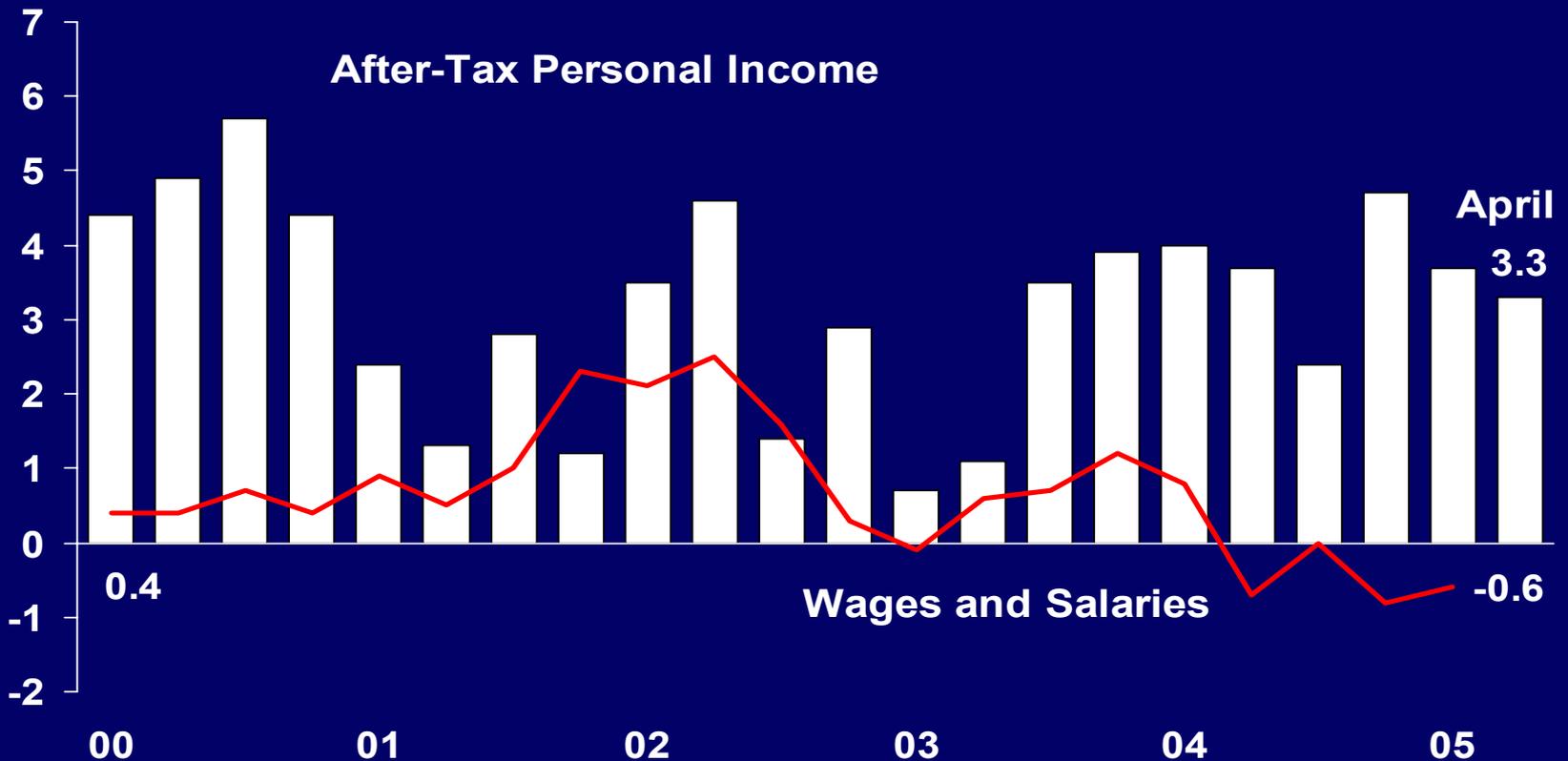
\*\* Period End

# U.S. Employment



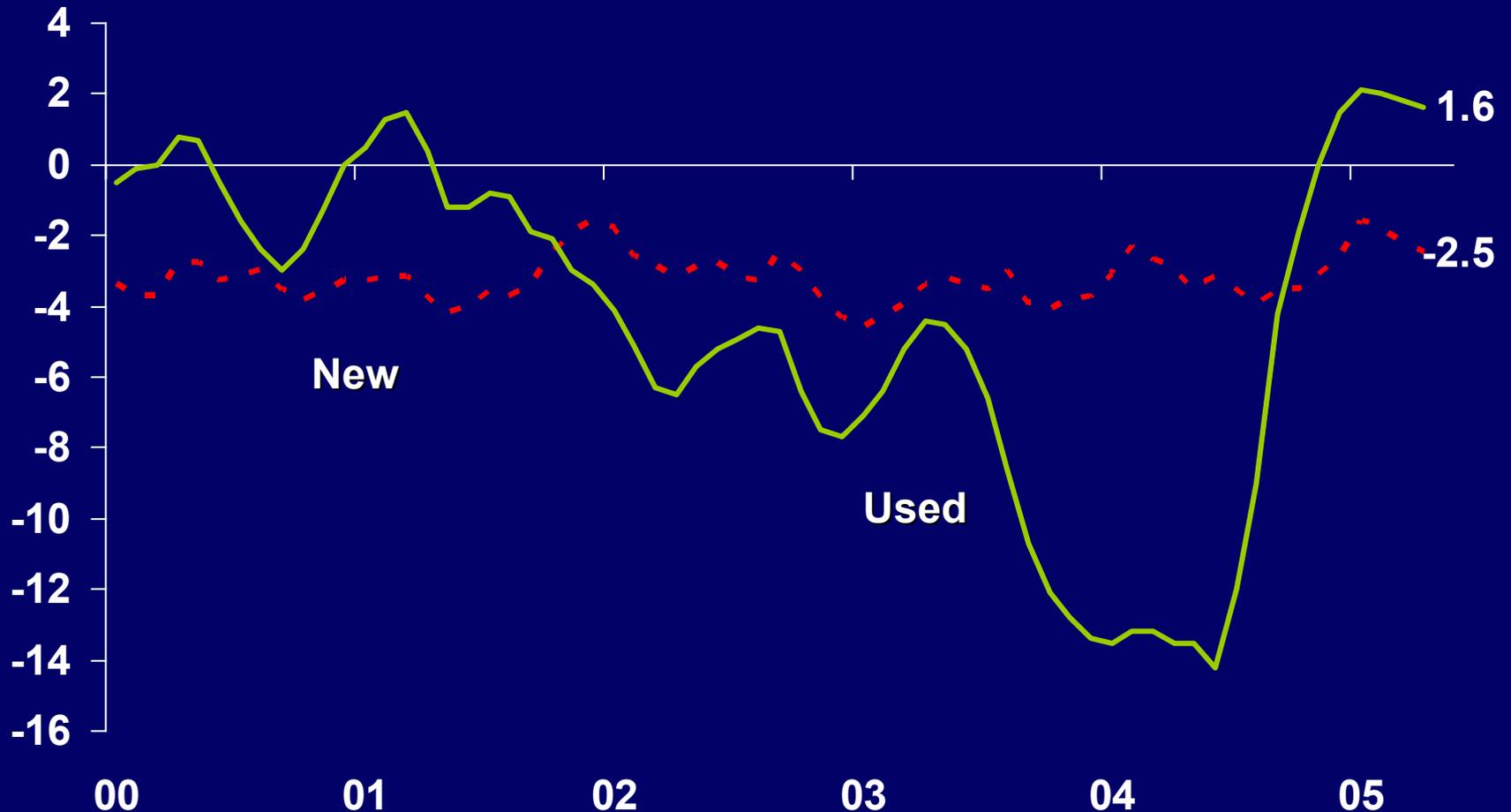
# Real After-Tax Income and Private Employment Compensation

% Change Over Year Ago



# Inflation-Adjusted Vehicle Prices

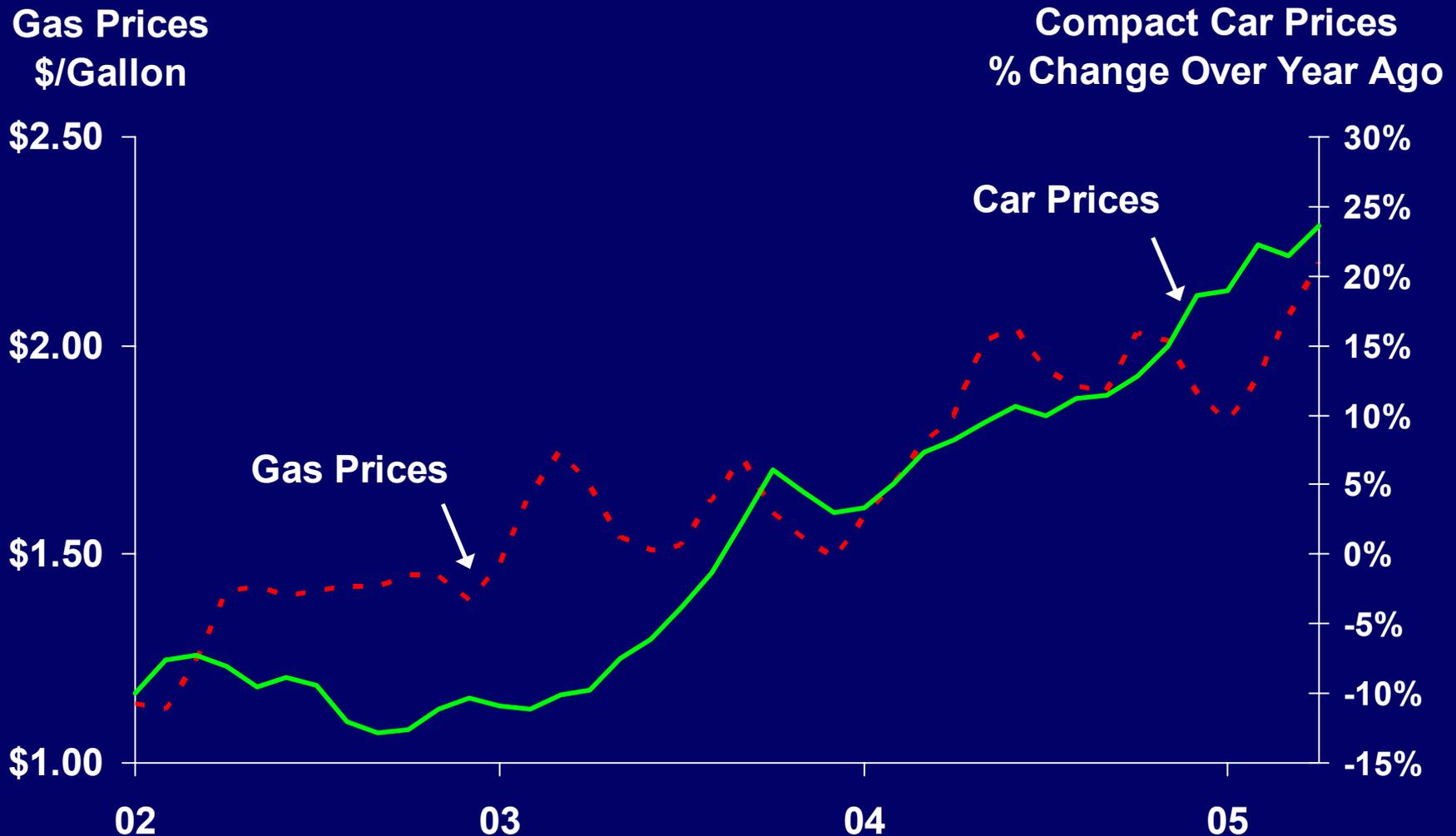
% Change Over Year Ago



# U.S. Interest Rates

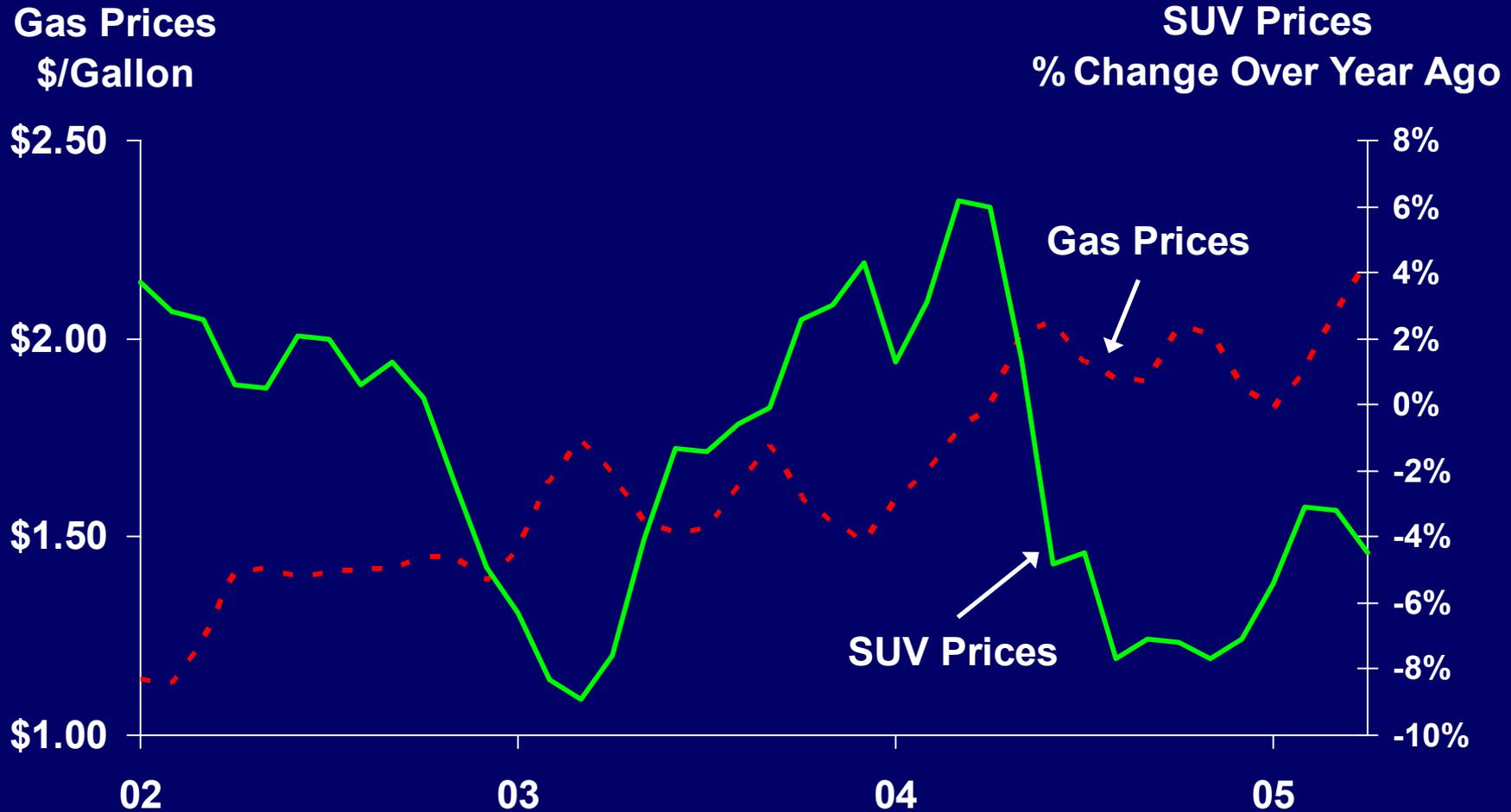


# Used Compact Car and Gas Prices



Source: Compact car prices are Manheim auction data

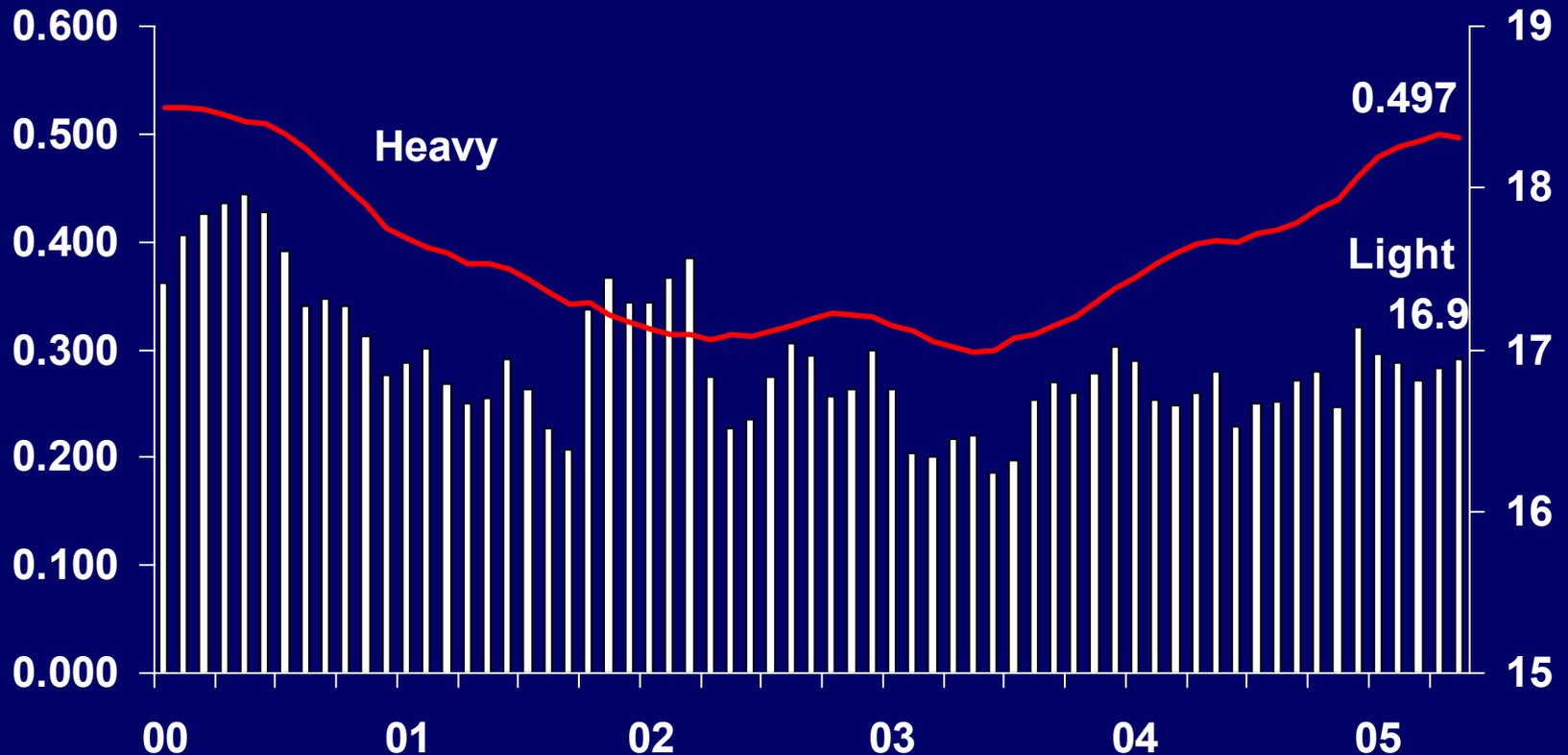
# Used Full Size SUV and Gas Prices



Source: SUV prices are Manheim auction data

# U.S. Industry Sales

6-Month Moving Average  
(SAAR Mil.)



Memo:

FY Sales

17.8

17.5

17.1

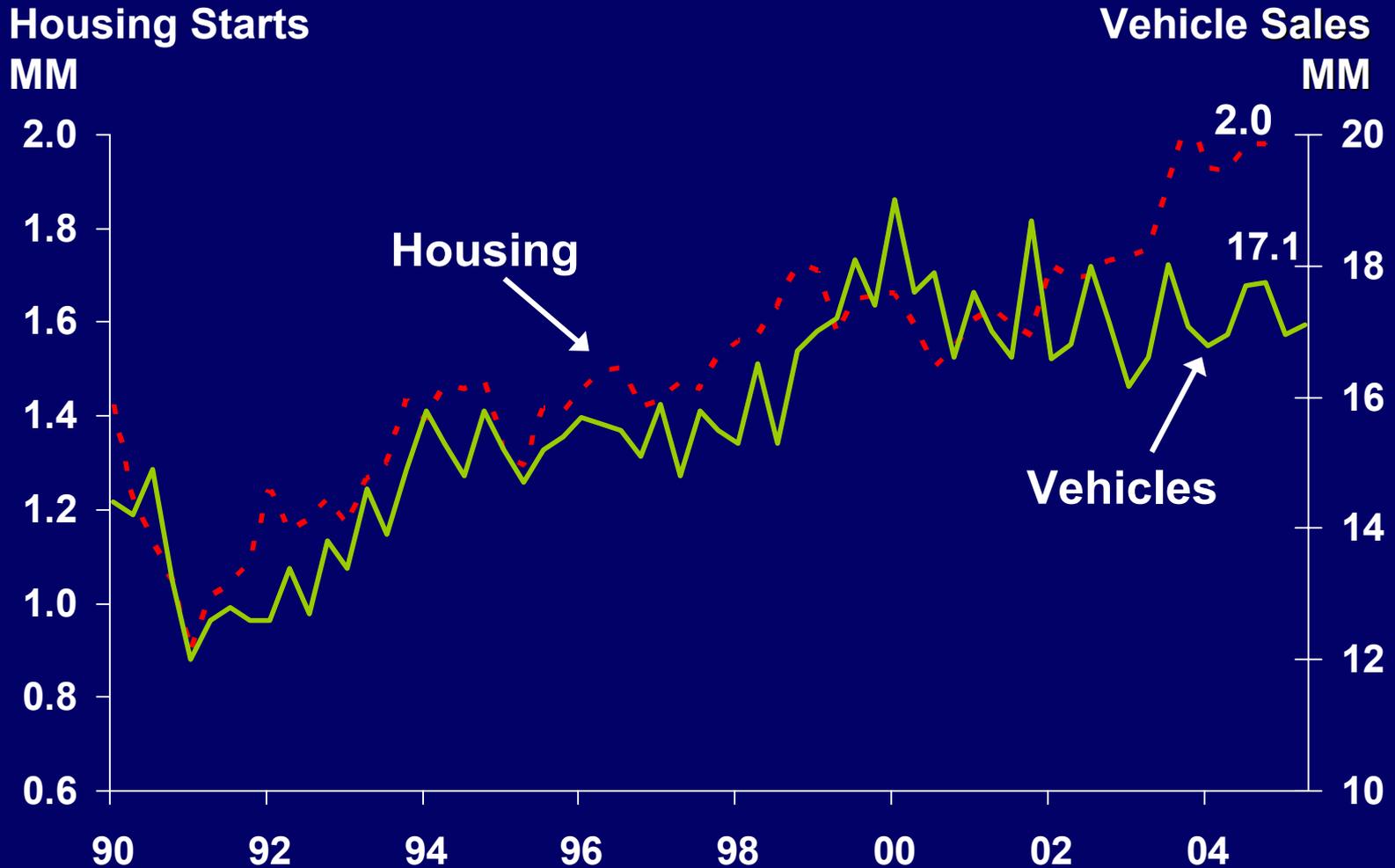
17.0

17.3

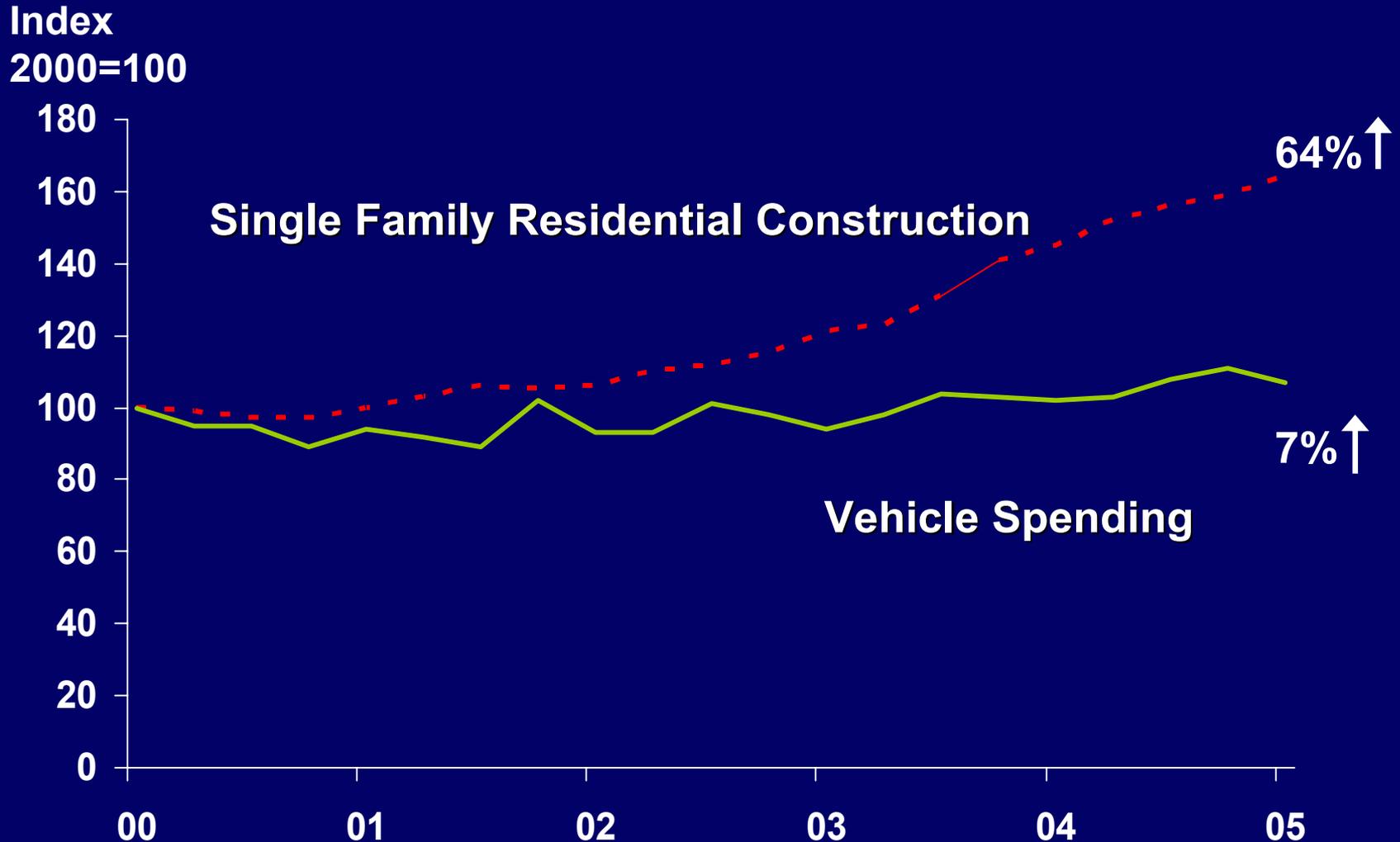
17.2 Fcst.

# Housing and Autos Decoupled

# Housing Starts and Vehicle Sales

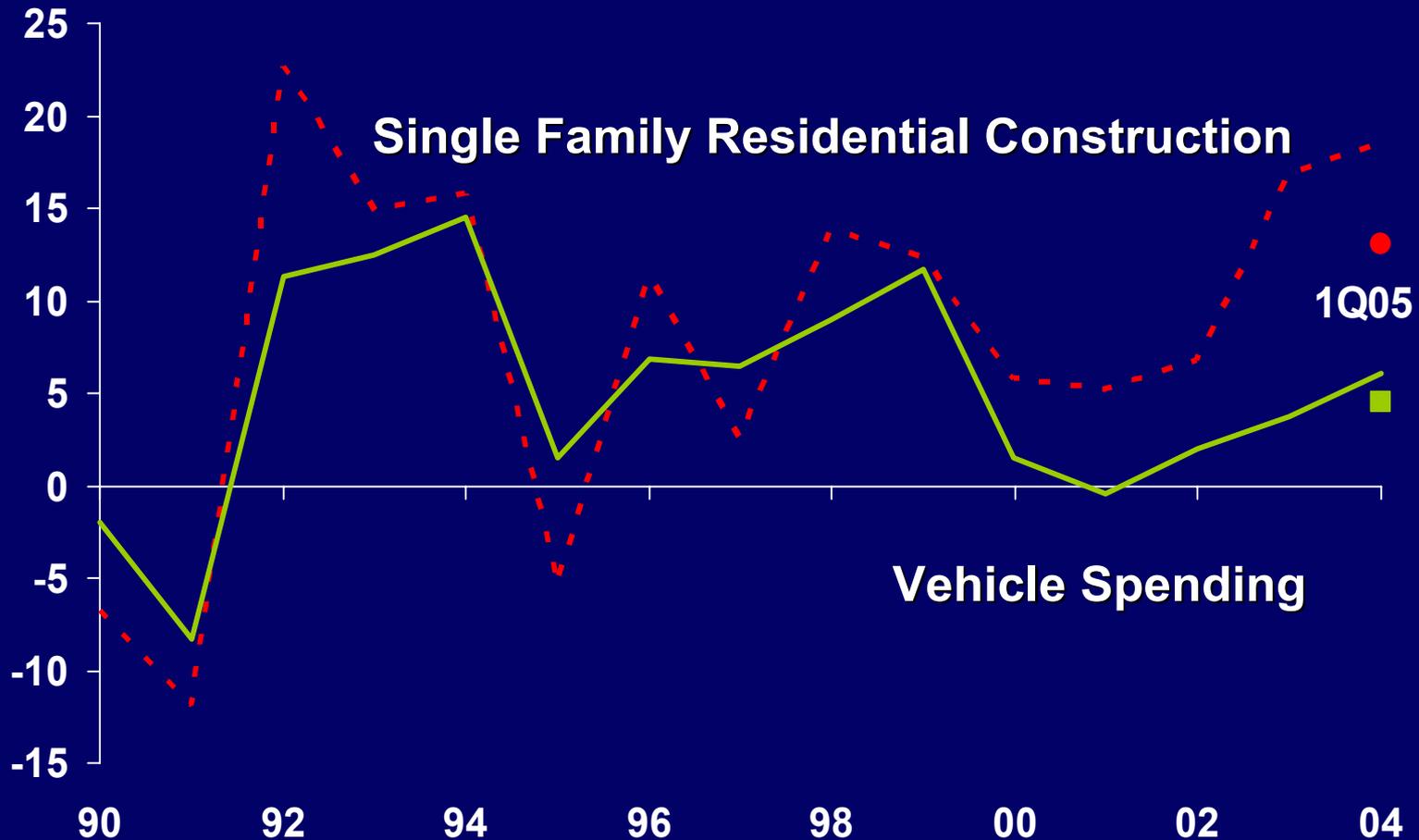


# Spending on Housing and Autos



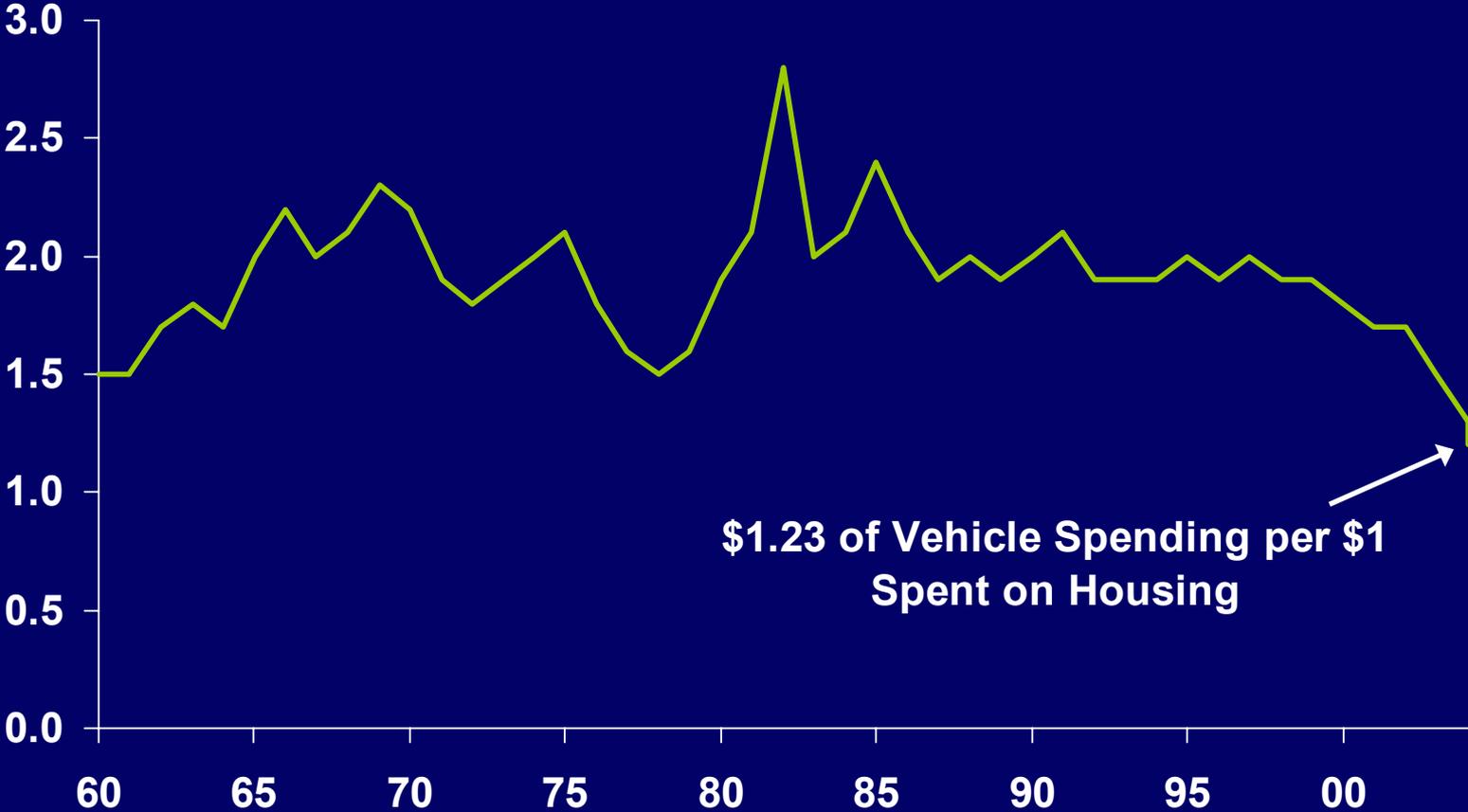
# Spending on Housing and Autos

% Change Over Year Ago



Source: Bureau of Economic Analysis. Based on Current Dollars

# Ratio of Spending on Autos to Spending on Single Family Housing

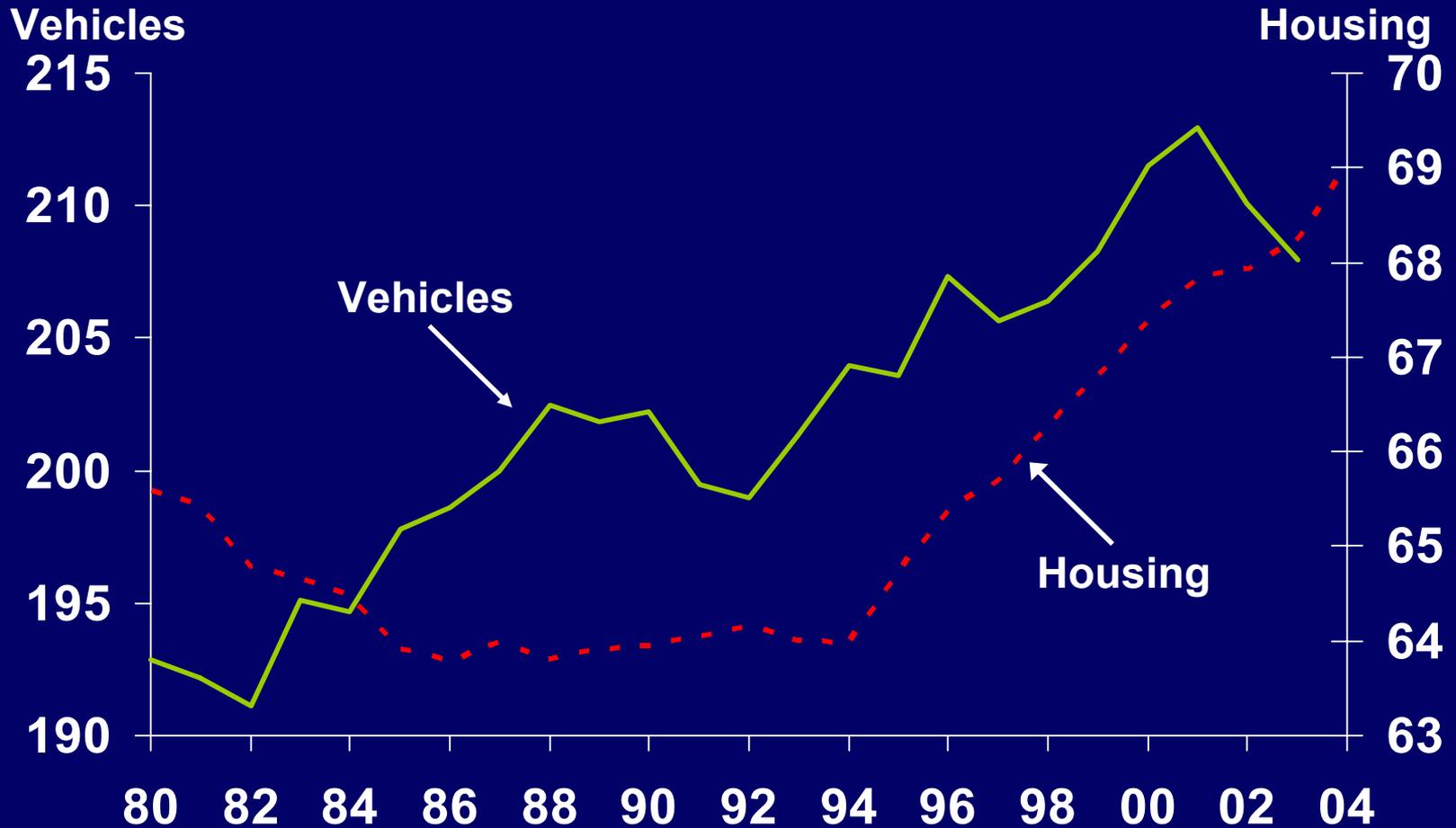


**\$1.23 of Vehicle Spending per \$1 Spent on Housing**

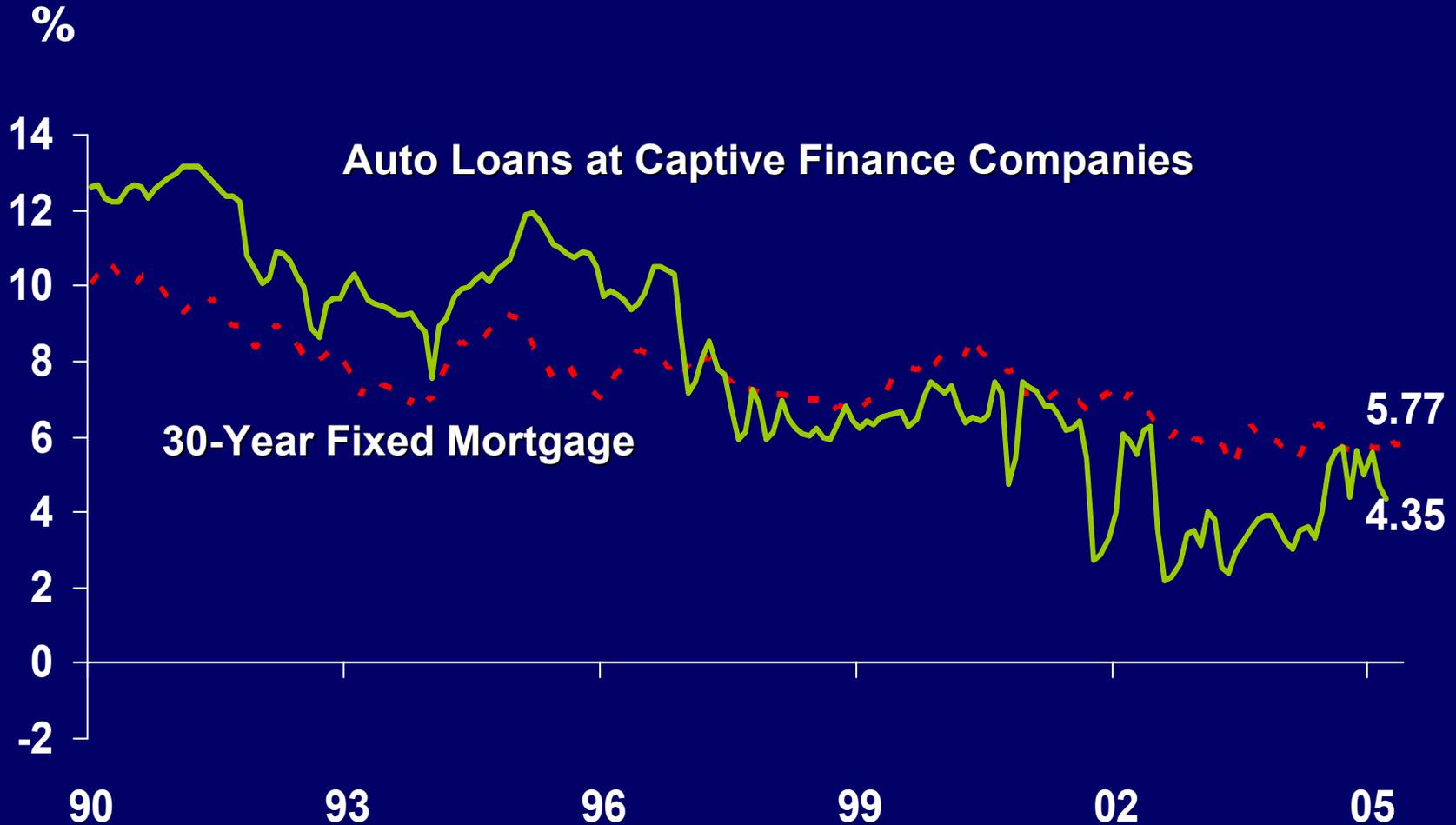
Source: Bureau of Economic Analysis. Based on Current Dollars

# Housing and Auto Ownership Rates

% per Household



# Mortgage and Auto Loan Interest Rates



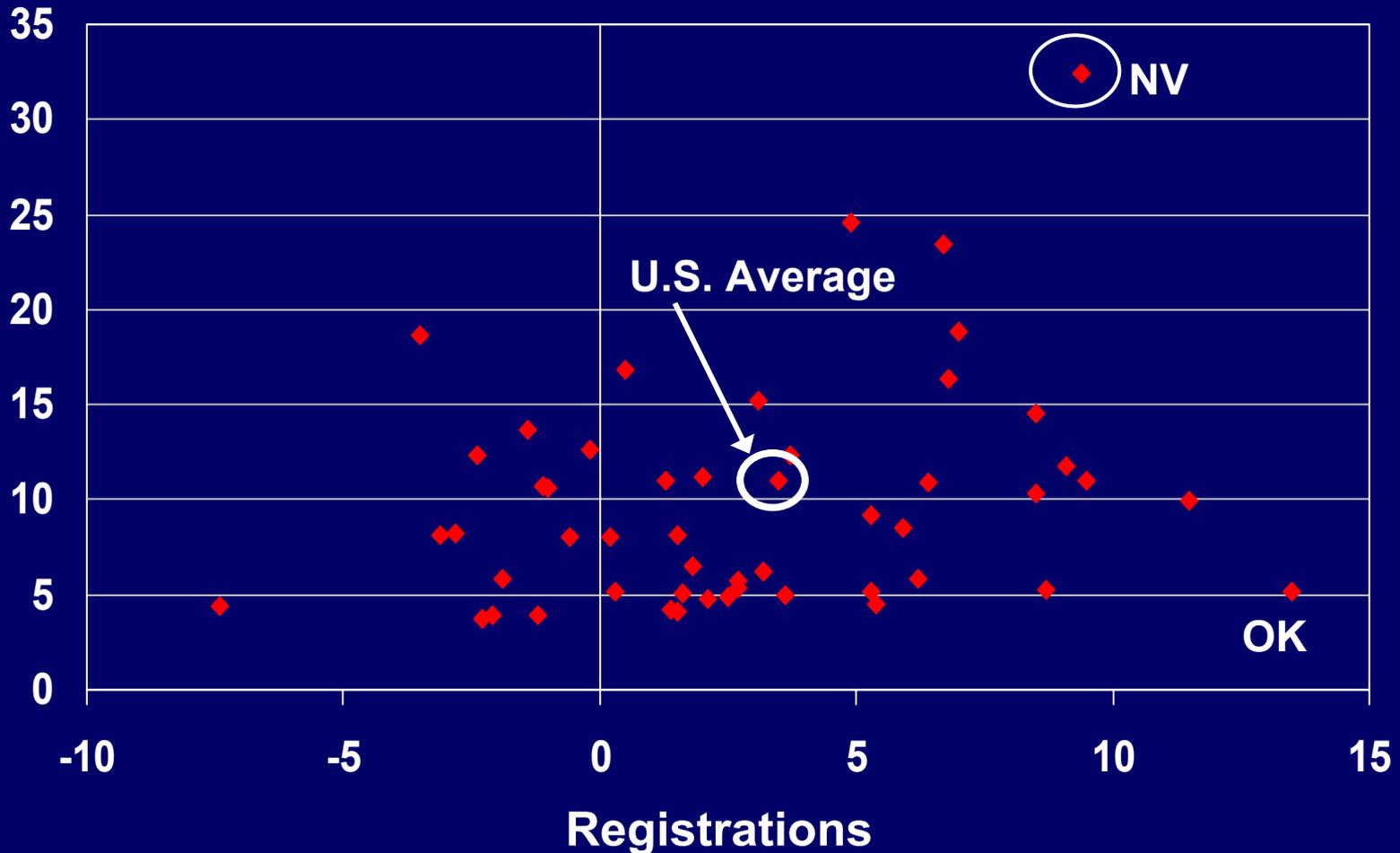
# Housing and Autos Loan-to-Value Ratios



# 2004 Home Prices and Vehicle Registrations

% Change Over Year Ago

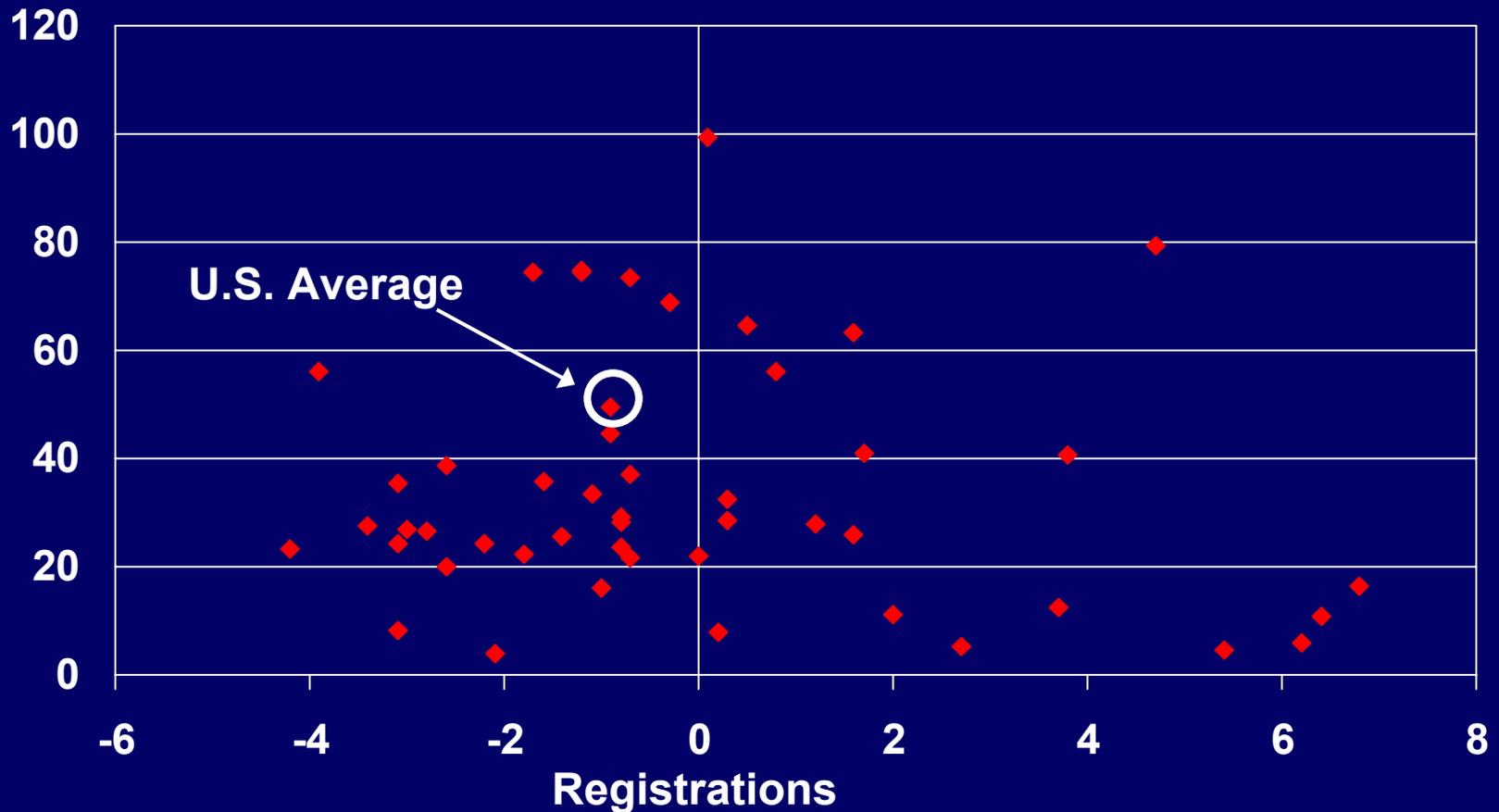
Home Prices



# 2000-2004 Home Prices and Vehicle Registrations

Average Annual % Change

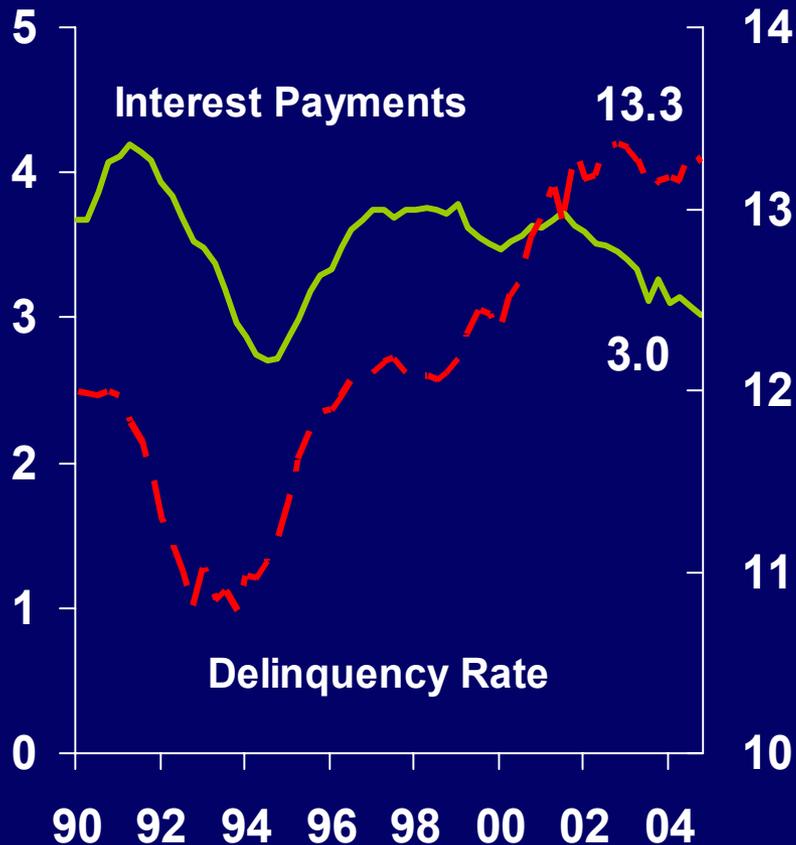
Home Prices



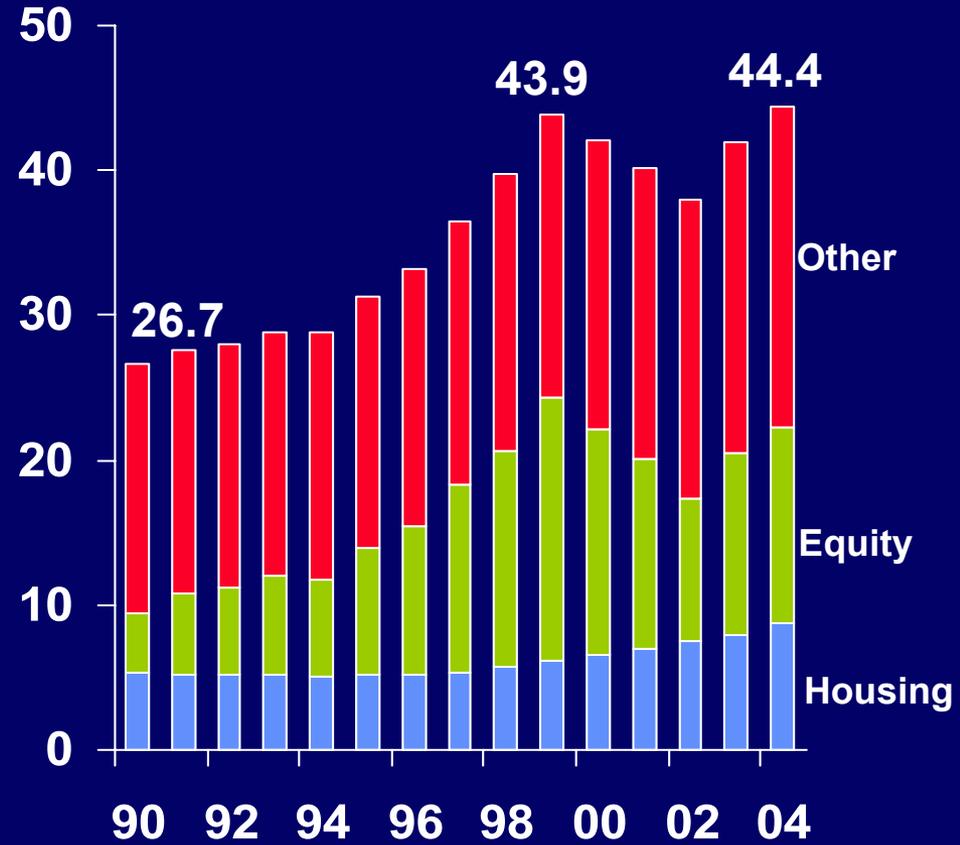
# Household Balance Sheets

**Delinquent Loans  
as % Loans  
Outstanding**

**Interest Payments  
as % Disposable  
Income**



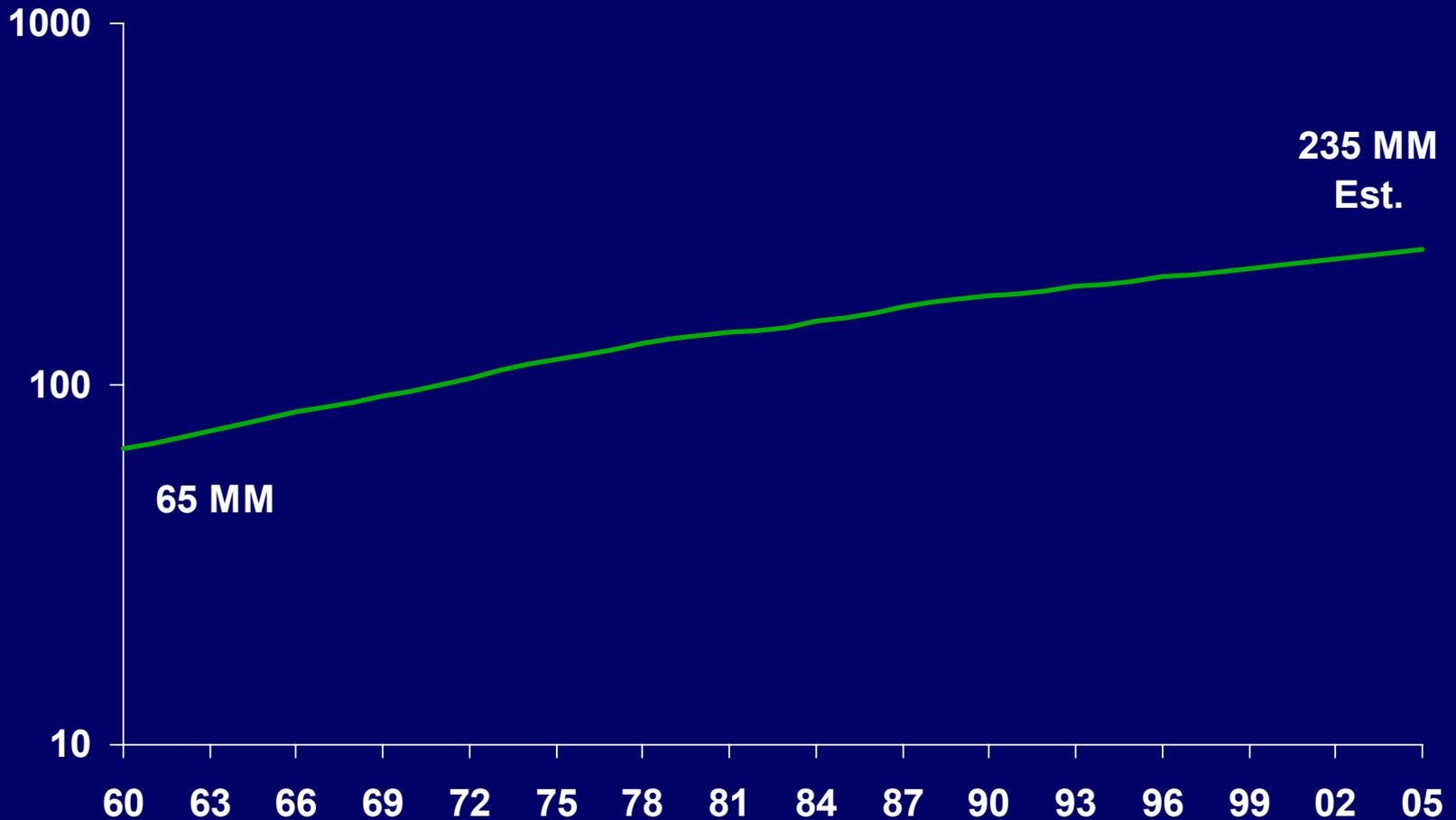
**Household Net Wealth  
\$ 2004 Trillions**



# Vehicle Stock and Scrappage Rates

# U.S. Vehicle Stock

Log Scale

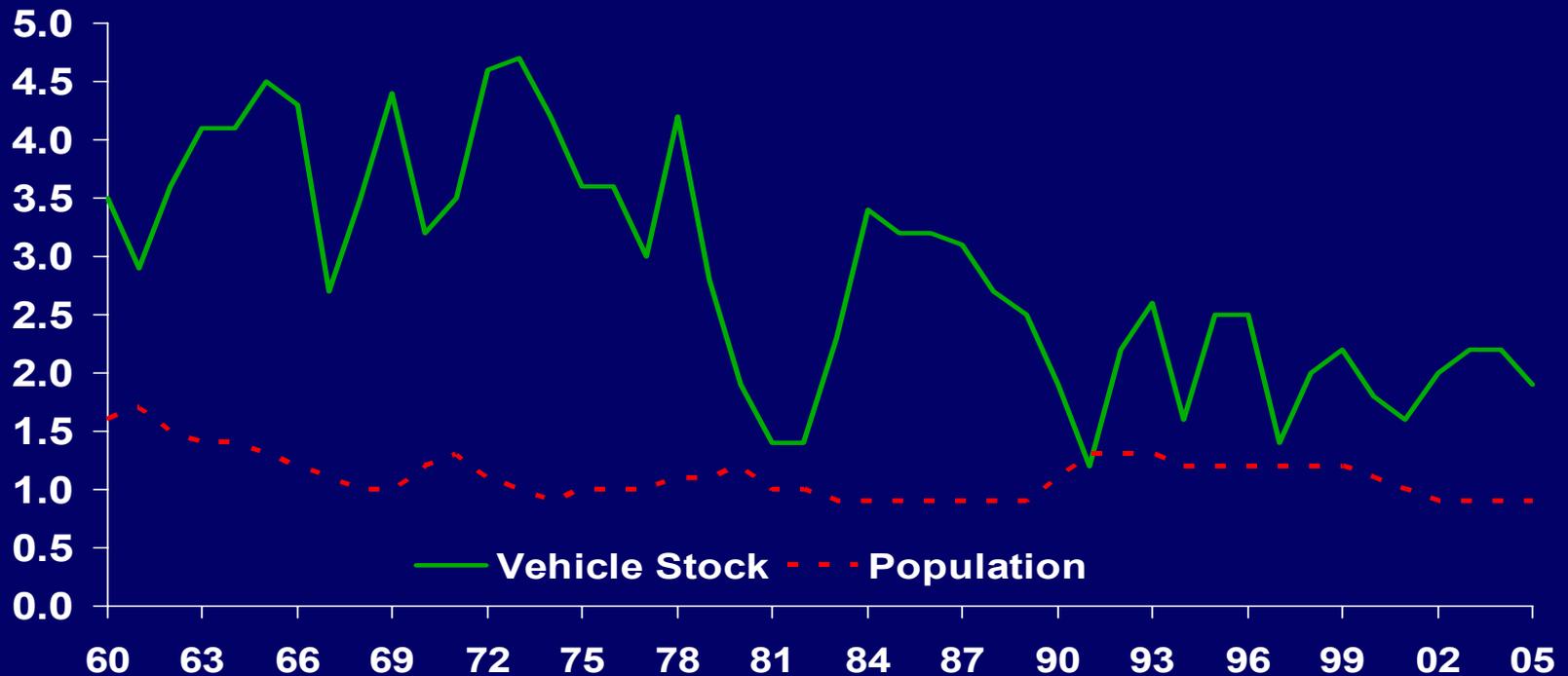


Source: Polk Data, Ford Corporate Economics Estimates

# U.S. Vehicle Stock and Population Growth

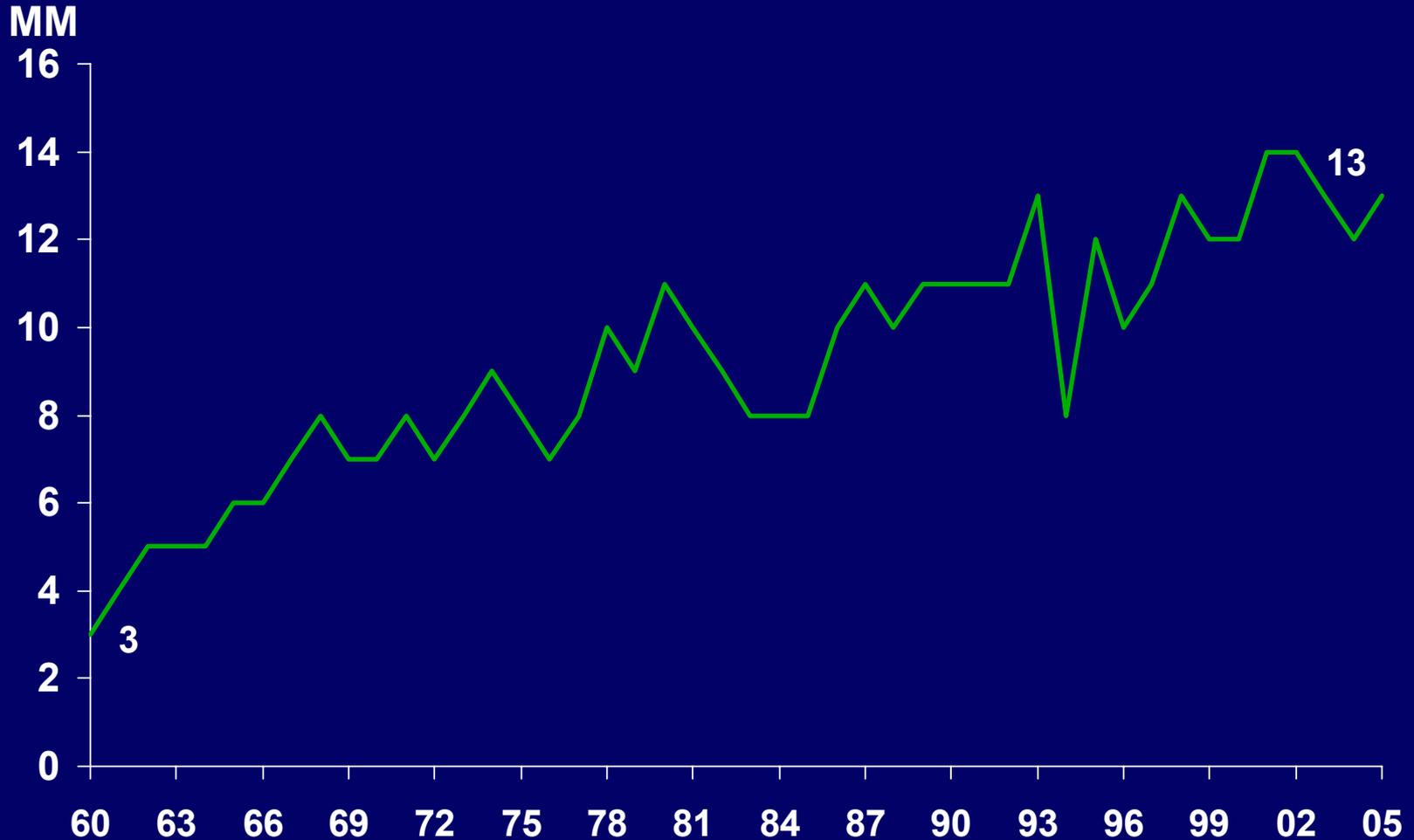
## Annual % Change

### Vehicle Stock



Source: Polk Data, U.S. Census Bureau

# U.S. Vehicle Scrappage Estimates



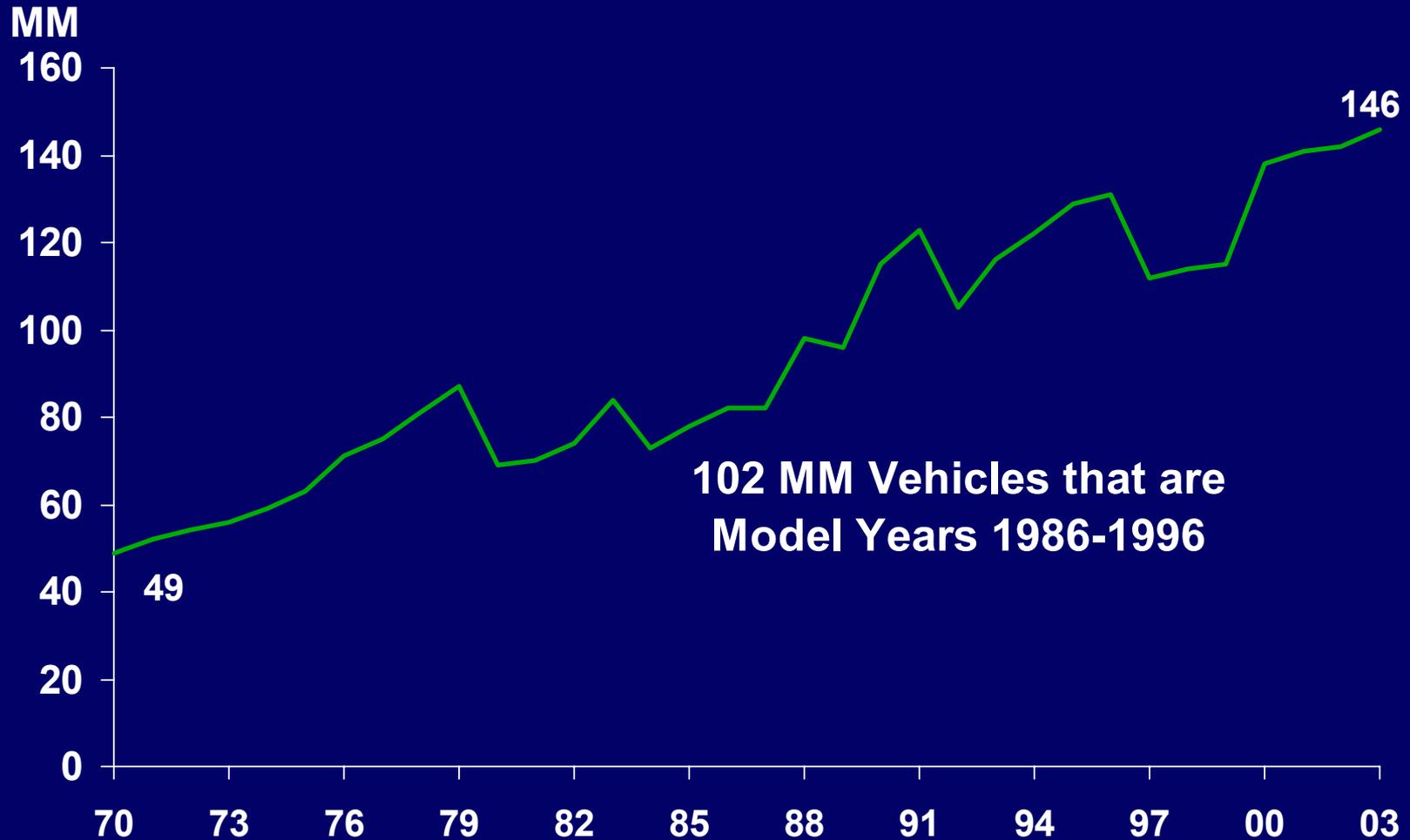
Source: Polk Data, U.S. Census Bureau

# Median Age of Vehicle Stock

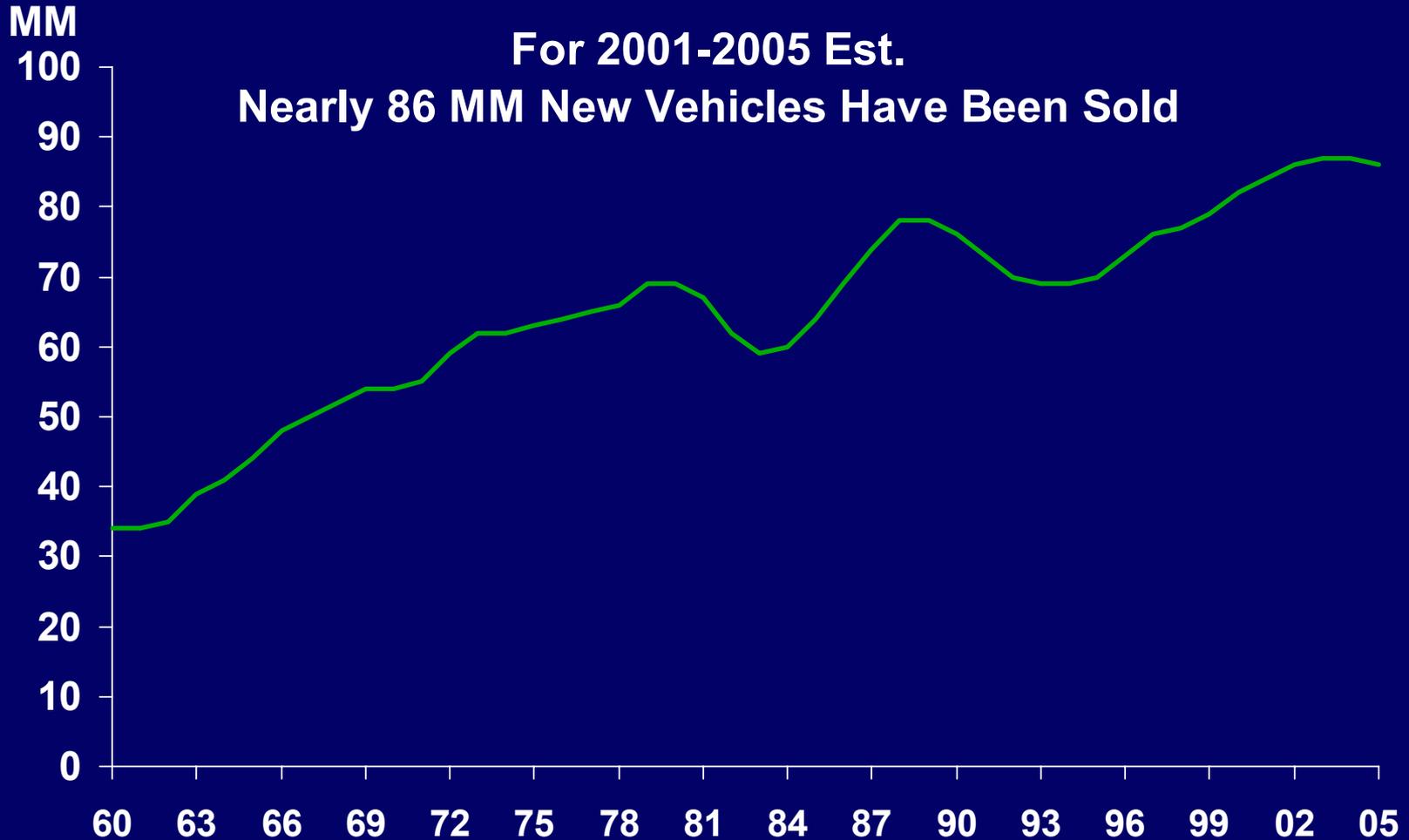


Source: Ford Corporate Economics Estimates

# Estimated Vehicles Above Median Age



# Cumulative 5-Year New Vehicle Sales



# Business Outlook

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	<u>Real GDP</u>		<u>Inflation</u>		<u>Vehicle Sales</u>	
	% Change		% Change		Millions of Units	
	From Prior Year		From Prior Year			
	<u>2004</u>	<u>2005</u>	<u>2004</u>	<u>2005</u>	<u>2004</u>	<u>2005</u>
		Fcst.		Fcst.		Fcst.
U.S.	4.4	3.3	2.7	3.0	17.3	17.2
Euro Area	1.8	1.8	2.1	2.0	12.9	12.7
UK	3.1	2.4	1.3	1.8	2.96	2.75
China	9.5	8.5	3.9	3.0	5.21	5.82