The Outlook for Construction Machinery

Donald A. Johnson
Chief Economist
Caterpillar Inc.

Cautionary and Safe Harbor Statement

"The presentation contains certain assumptions, trends and projections on the global economy, which may impact the construction, mining and petroleum industries. The data used in this presentation are either from Caterpillar's public filings or from external sources outside of Caterpillar, as indicated in the specific tables discussed in the presentation. Audiences are cautioned not to place undue reliance on projections in this presentation, as they are only relevant as of the date of this presentation and as actual results of the global economy may materially differ from the projections. <u>All opinions or projections expressed in this presentation are those of the presenter</u> and not of Caterpillar. <u>Therefore, Caterpillar is not responsible for any misstatements or omissions and undertakes no obligation to revise any of such opinions or projections</u> whether as a result of new information, future events or otherwise."

Dealer Reported Retail Statistics - Machines

Weaknesses in North America and Europe

	Change from <u>Year Earlier</u>
Latin America	+35%
Asia/Pacific	+16%
Europe/Africa ME/CIS	**-9%**
North America	**-12%**
World	**-2%**

Source: Changes computed using dealer reported deliveries of machines to end users in constant dollars; posted by Caterpillar Investor Relations on www.cat.com.

Caterpillar Machinery Sales, 2007

Over 55% outside North America.

	Million Dollars
North America	12,596
Europe/Africa Middle East/CIS	8,588
Asia/Pacific	4,026
Latin America	3,149
Outside North America	15,763

Source: Caterpillar Inc. 2007 Annual report, p. 39.

New Machine Distribution to End Users, 2007

Construction and mining are main drivers.

	% Share
Heavy Construction	34
Mining	22
General Construction	20
Quarry & Aggregates	10
Industrial	5
Paving	4
Forestry / Other	5

Source: Caterpillar Inc. 2007 Annual report, p. 38.

Preliminary Outlook for 2009

Unfavorable environment ahead.

North America

- Recession in the United States
- Fed Funds rate to 1% or lower; substantial liquidity increases
- No improvement in the economy until late in the year

Other Developed Countries

- Recession in Europe
- Recession in Japan

Developing Economies

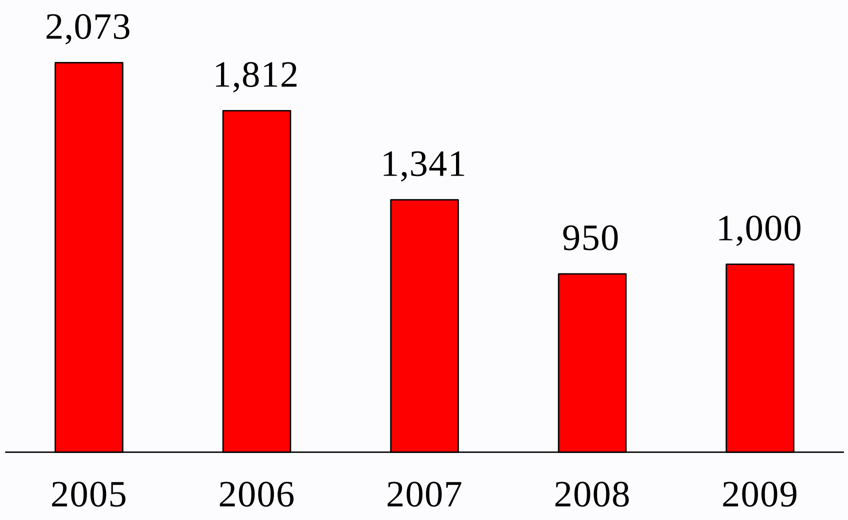
- Many positives of this cycle still in place
- Expect most to halt, or reverse, policy tightening
- Should fare better than developed economies

Source: Caterpillar Financial Release, October 21, 2008, pp. 14-15.

Housing – An Industry in Distress

3 years of decline

United States (000 units)

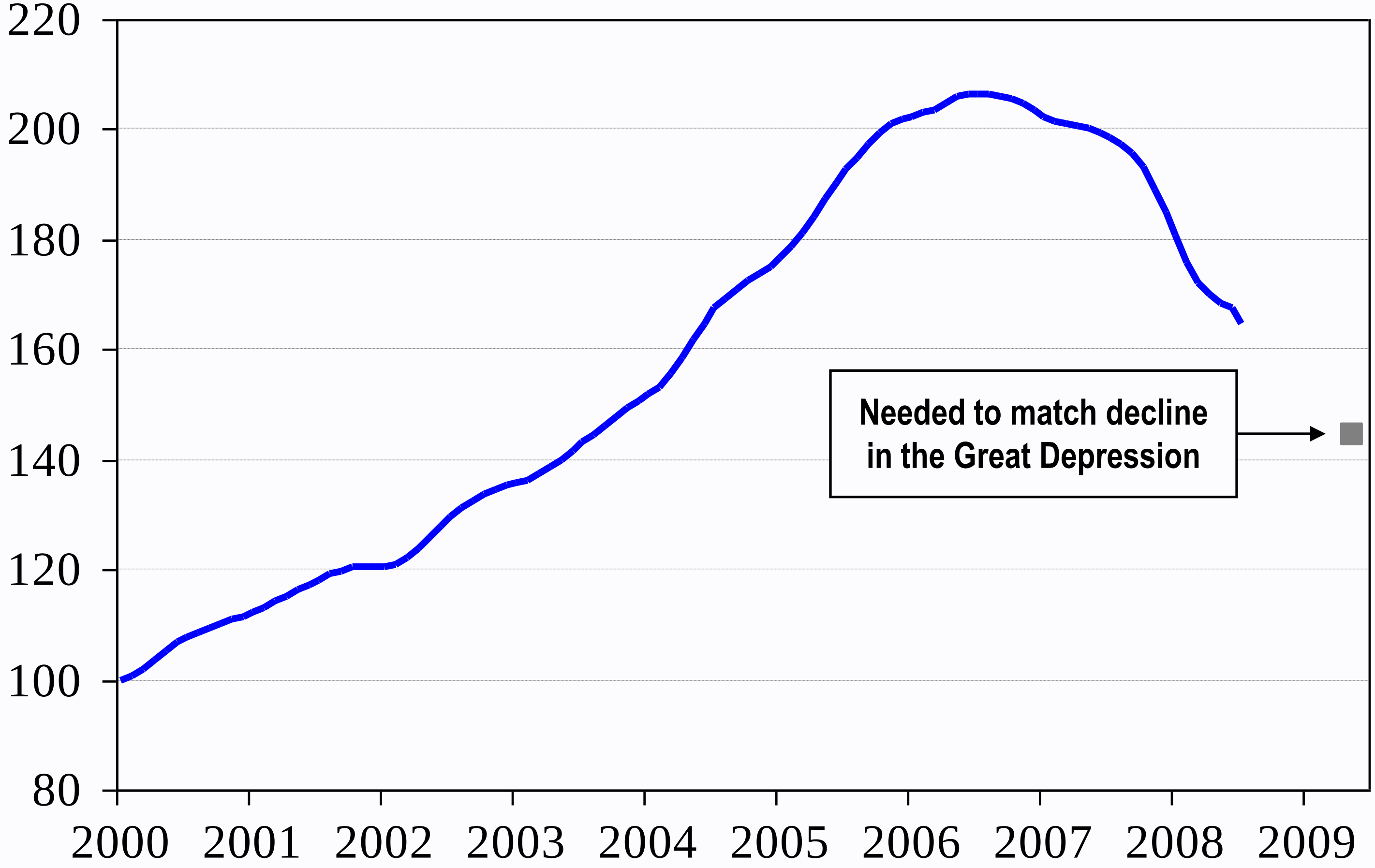


Source: Haver Analytics/Census Bureau/Business Economics

Housing Problem: Declining Prices

Down over 20% from the peak

Case-Shiller Index, January 2000 = 100

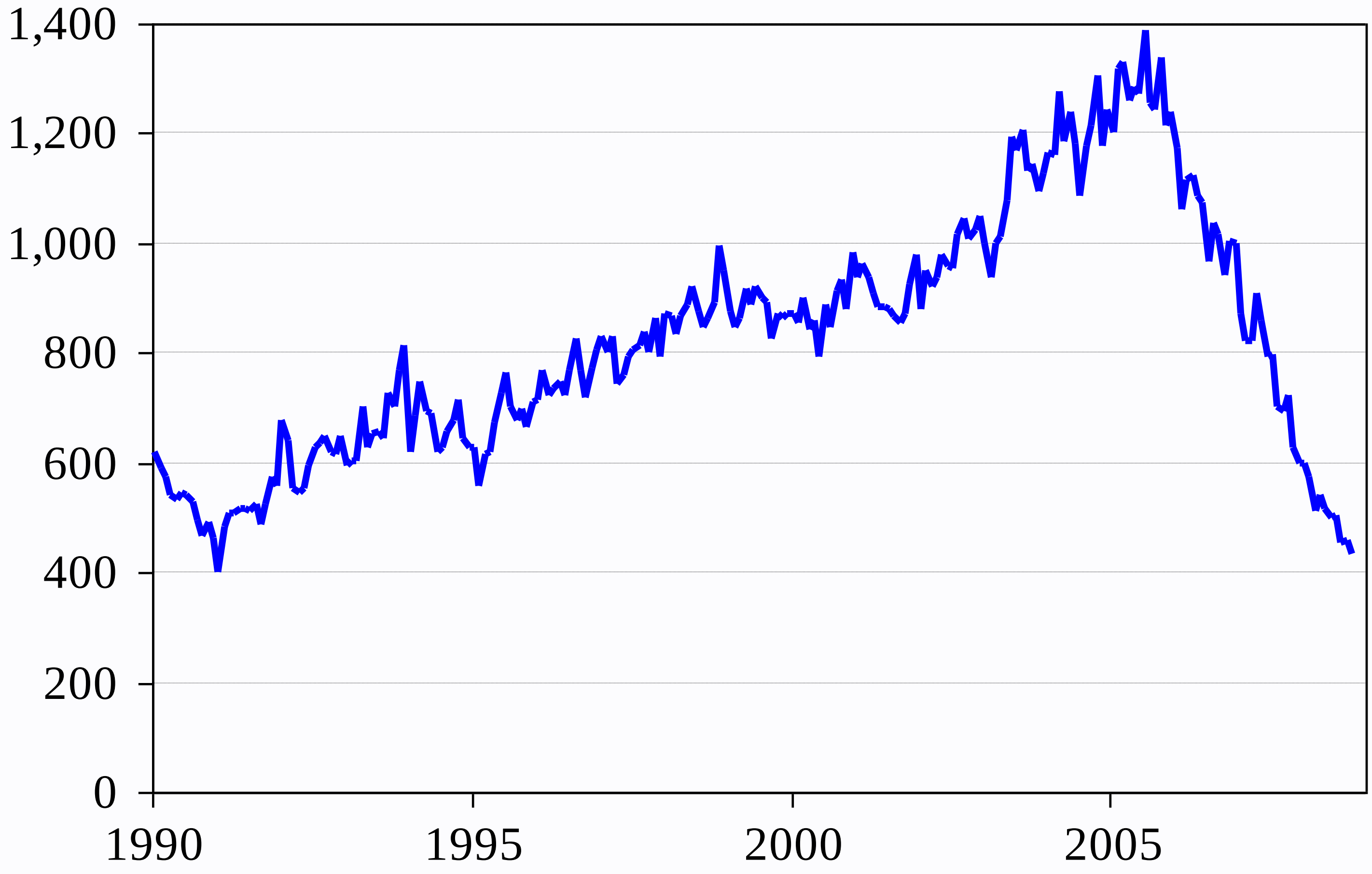


Source: Haver Analytics, S&P, Fiserv, and MacroMarkets LLC.

Housing Problem – No One Wants to Buy

Approaching 1990s low

New Single Family Homes Sold, Thousand Units

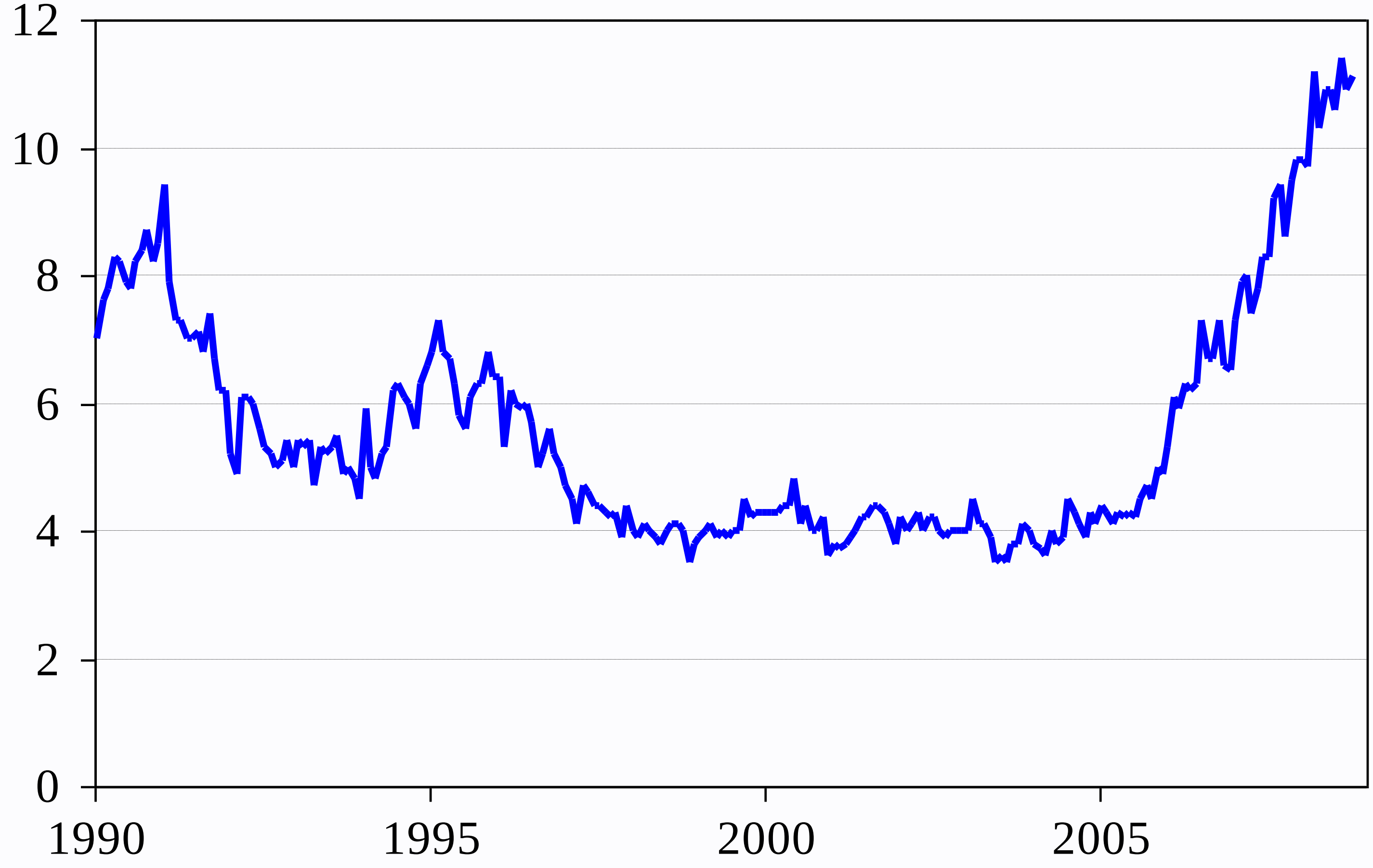


Source: Haver Analytics, Census Bureau.

Housing Problem – Plenty for Sale

Not decreasing

New Single Family Homes for Sale, Months of Sales

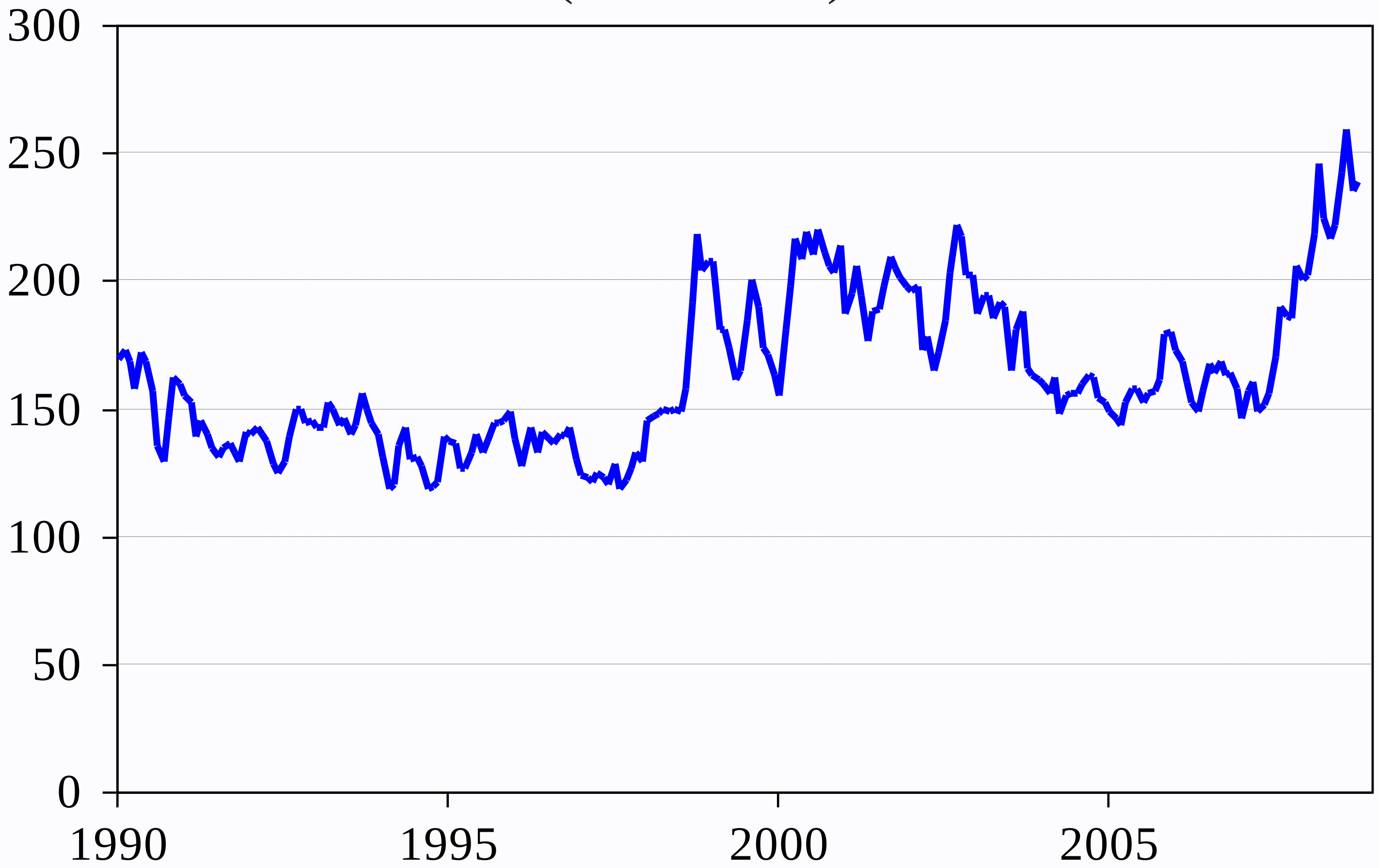


Source: Haver Analytics, Census Bureau.

Housing Problem – Cautious Lenders

May need 5% mortgage rate

Spread between 30-Year Mortgage Rate and 10-Year Treasury
(Basis Points)

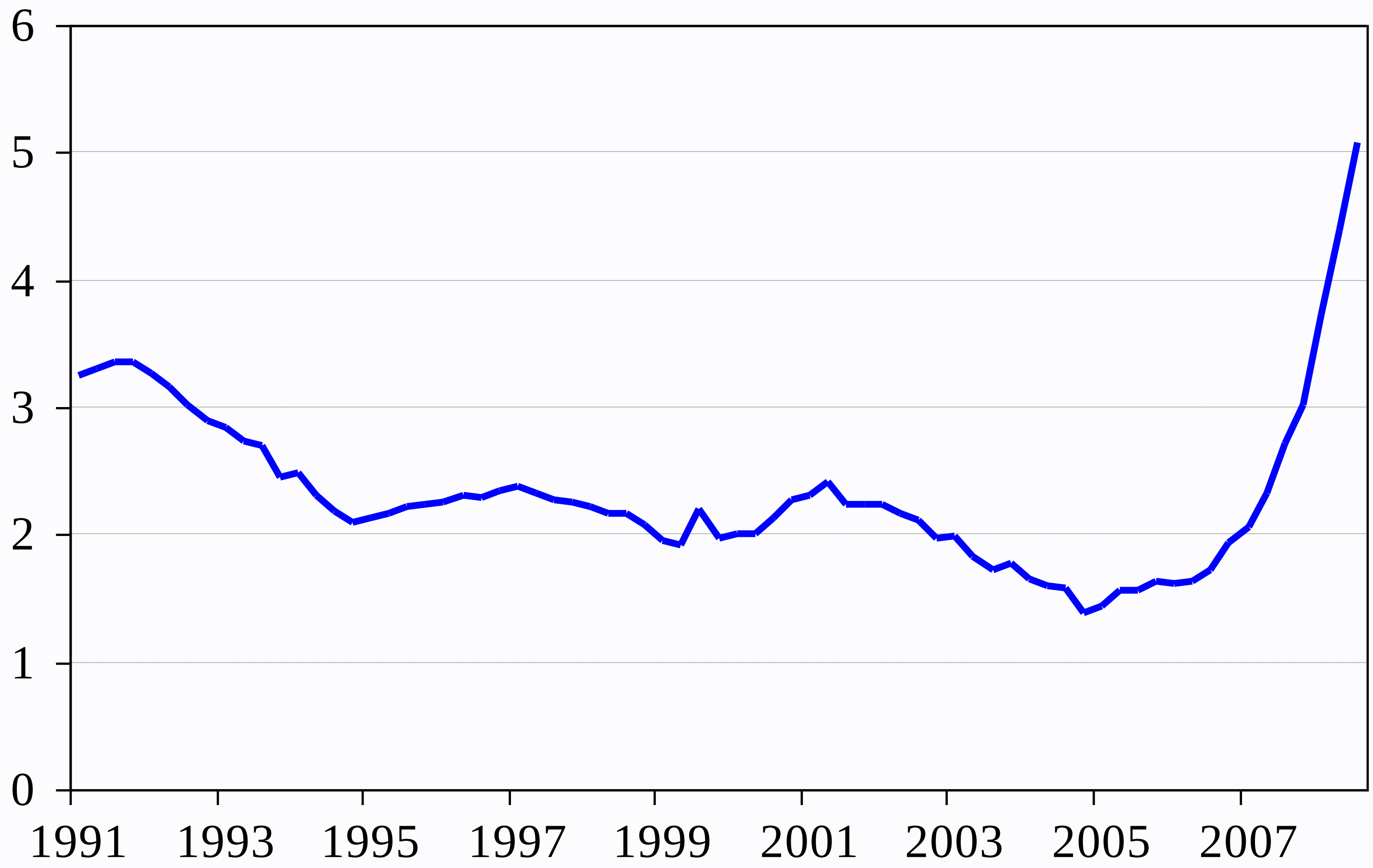


Source: Haver Analytics, Federal Reserve Board.

Housing Problem – Bad Loans

Further increase in repossessions

% of Mortgage Loans Delinquent at Commercial Banks

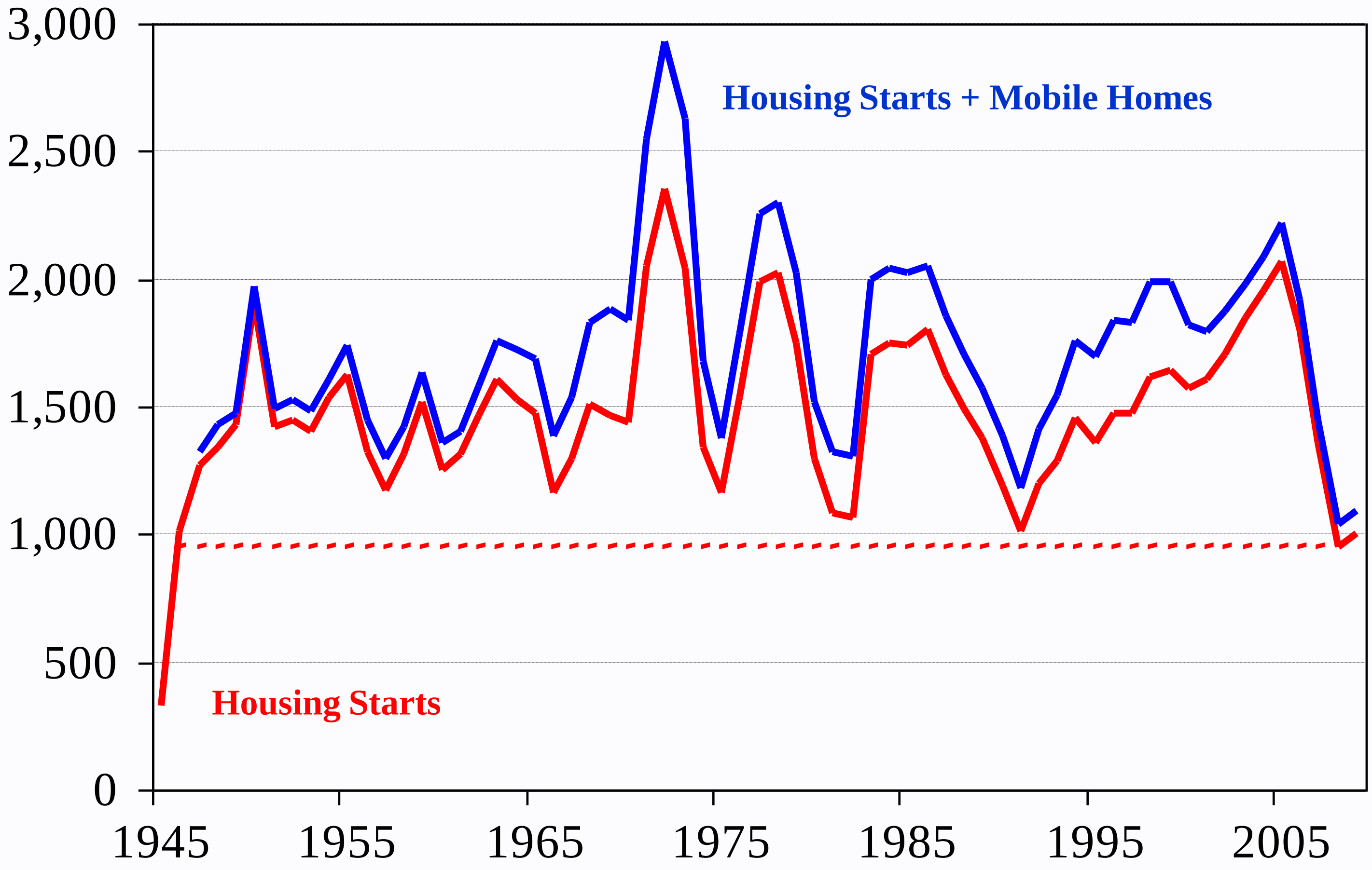


Source: Haver Analytics, Federal Reserve Board.

Total Housing Supply

Worst year since 1945

New Housing Units Produced, Thousand Units

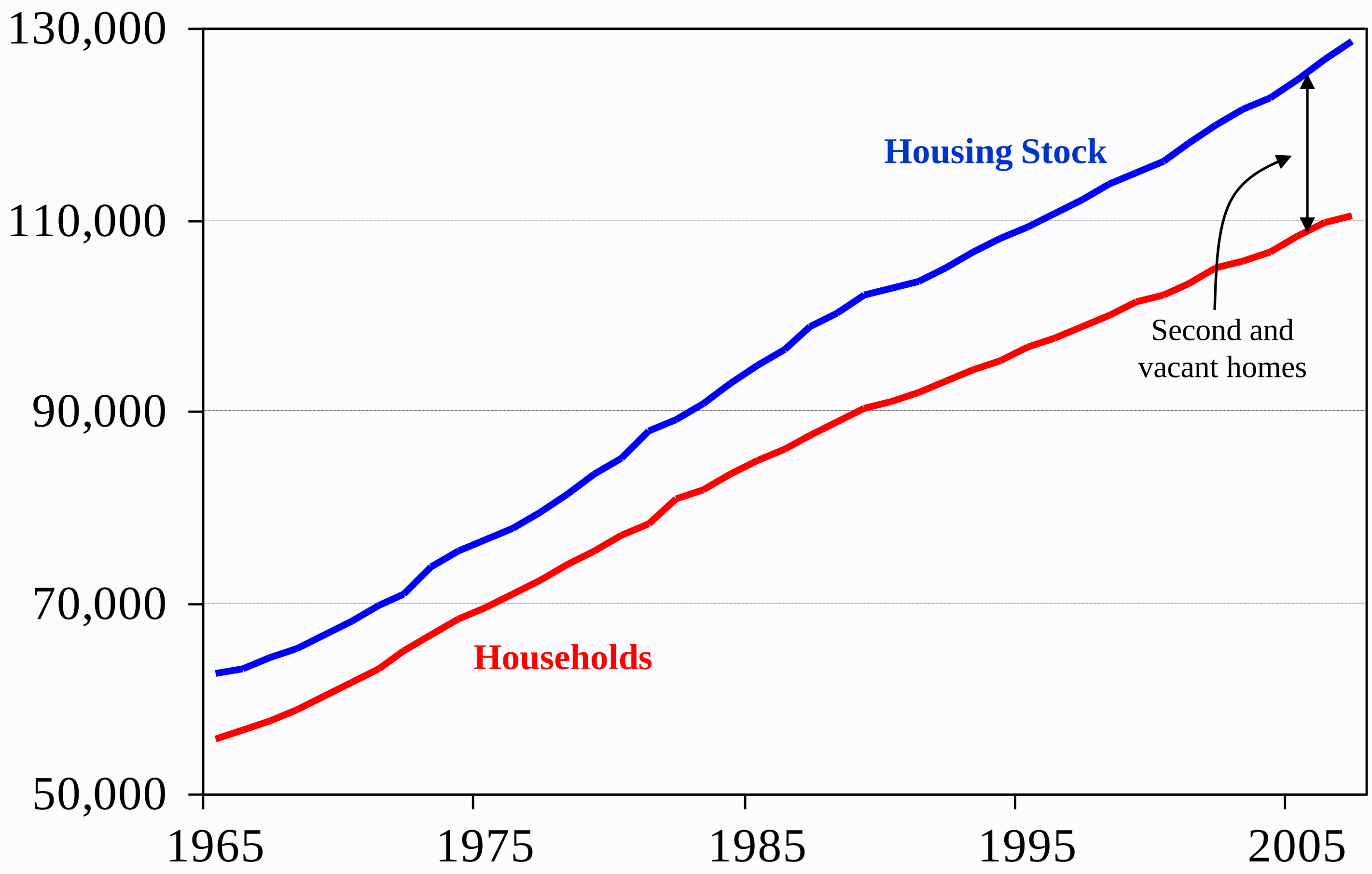


Source: Haver Analytics, Census Bureau.

Households Drive Housing Stock

Stock averages 13% higher than households

Housing Stock and Household, Thousands

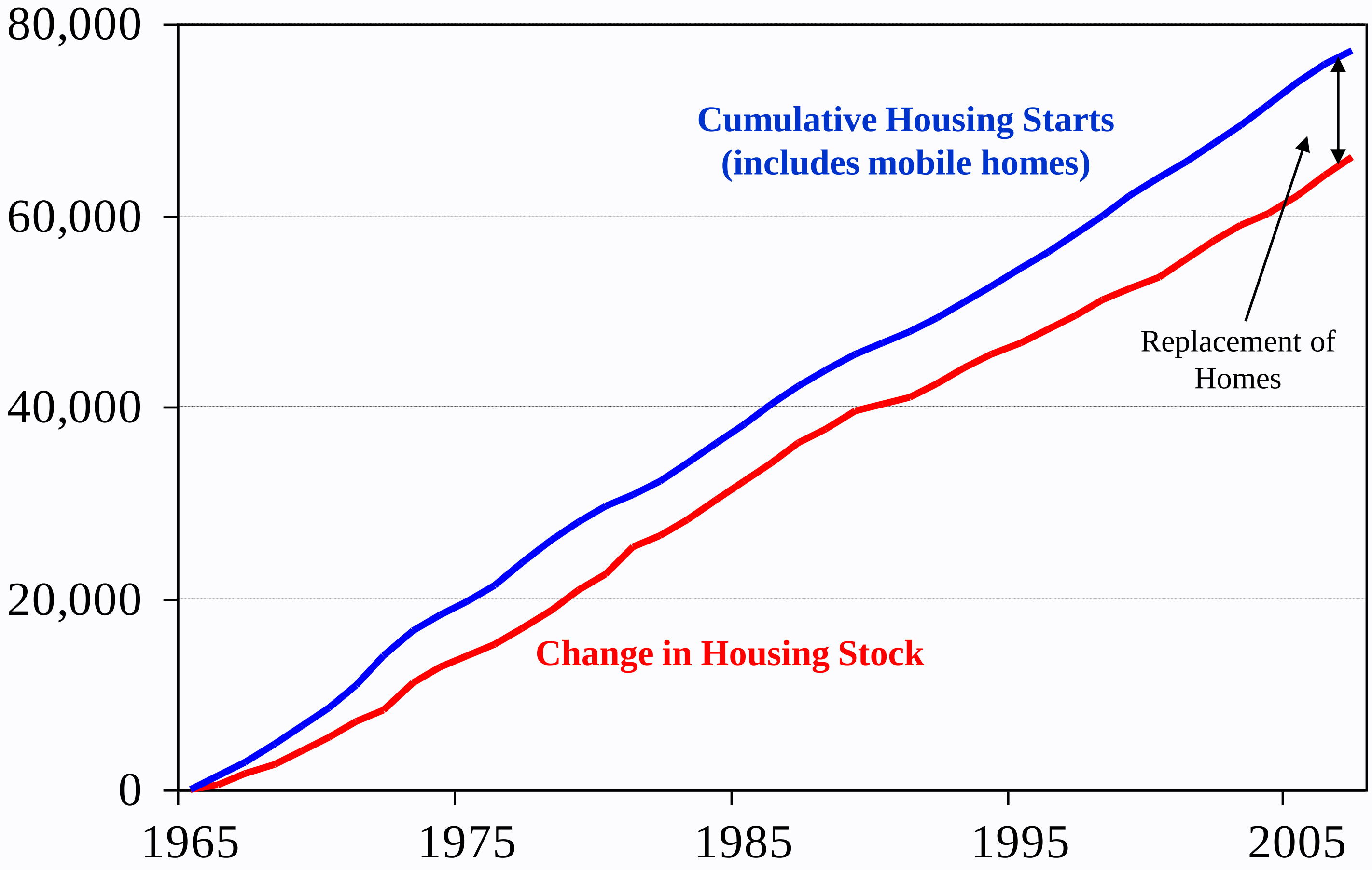


Source: Haver Analytics, Census Bureau.

New Units and Stock Growth

Units produced exceeds growth in stock

Housing Stock and New Homes, Thousand Units



Source: Haver Analytics, Census Bureau.

U.S. Housing Needs

Driven by population

Housing Stock

Other
19 Million

Increases 1.5% yearly → 0.3 million new units yearly

Replacement Needs

0.4% of stock yearly → 0.5 million new units yearly

Primary
111 Million

Increases 1% yearly → 1.1 million new units yearly

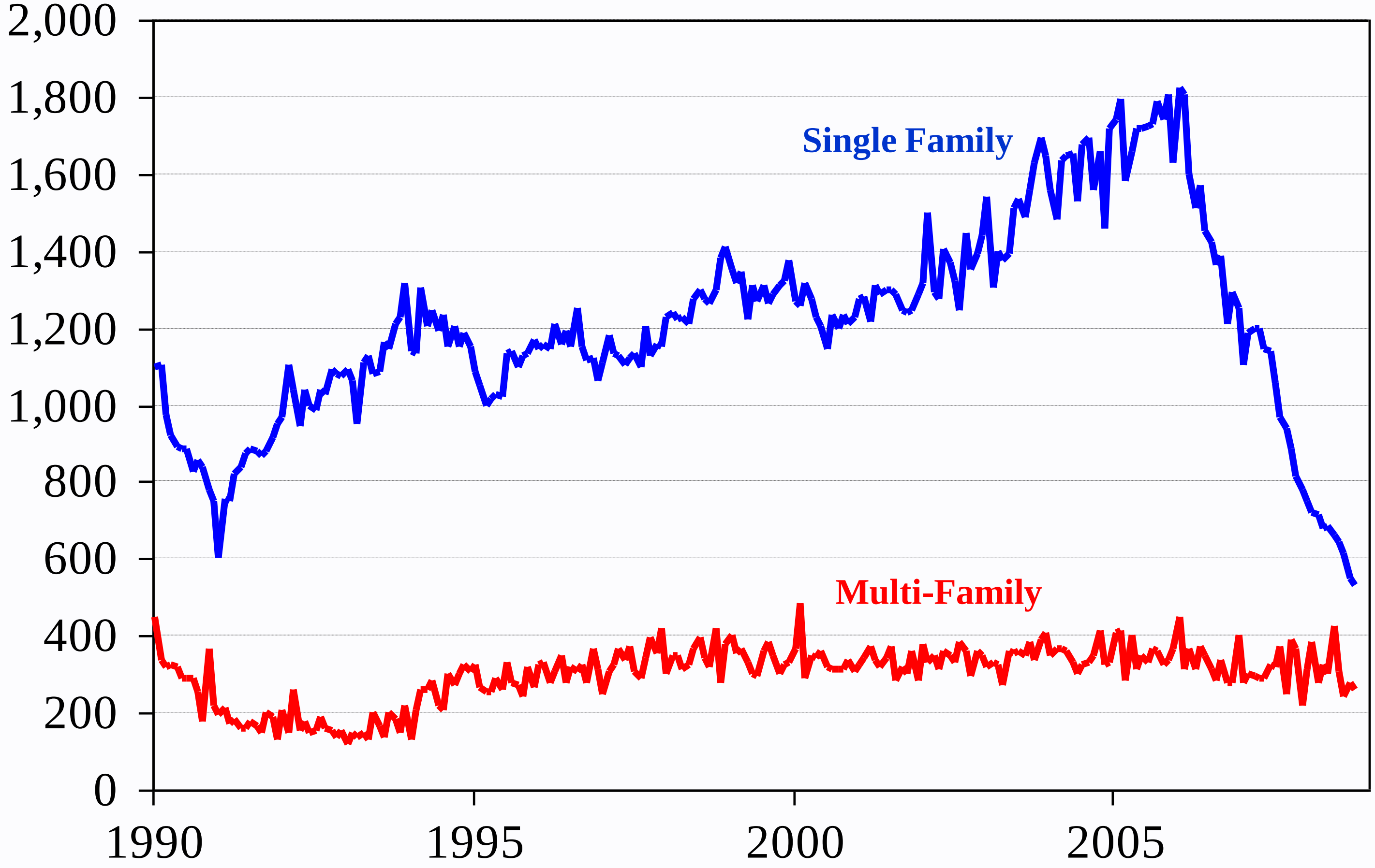
Demand		Supply	
Primary	1.1		
Other	0.3	Mobile	0.1
Replace	0.5	Starts	1.8
Total	1.9	Total	1.9

Source: Haver Analytics, Census Bureau, Business Economics.

Types of Housing

Likely to be more apartments

New Housing Starts, Thousand Units

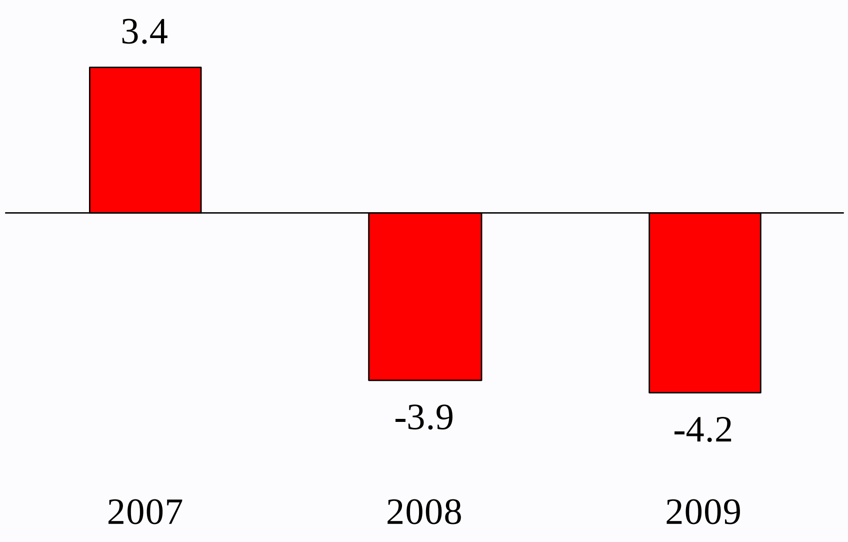


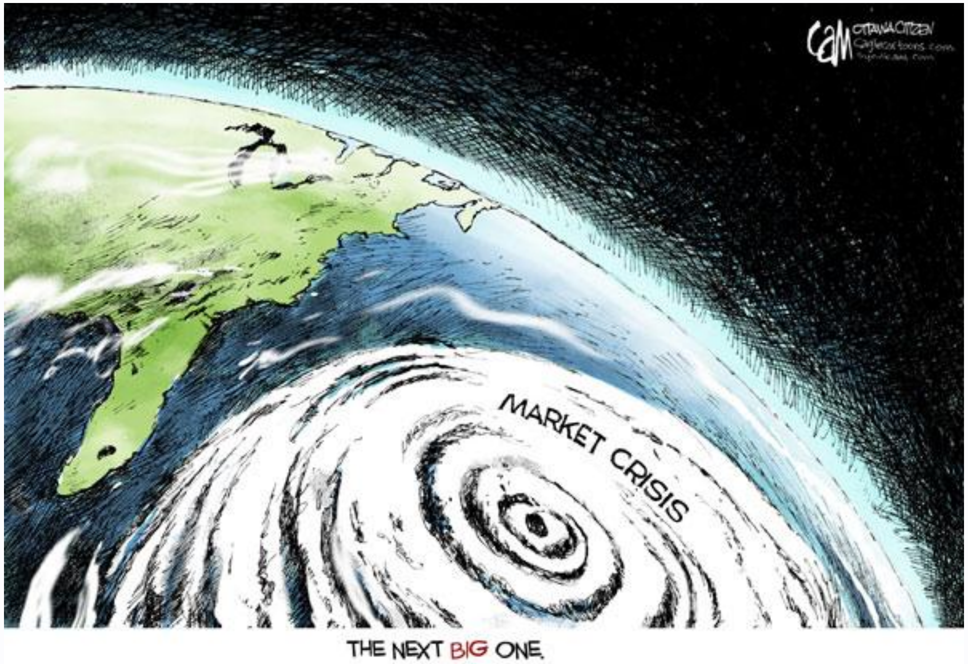
Source: Haver Analytics, Census Bureau.

Building Construction – Heading for Trouble

Orders are declining

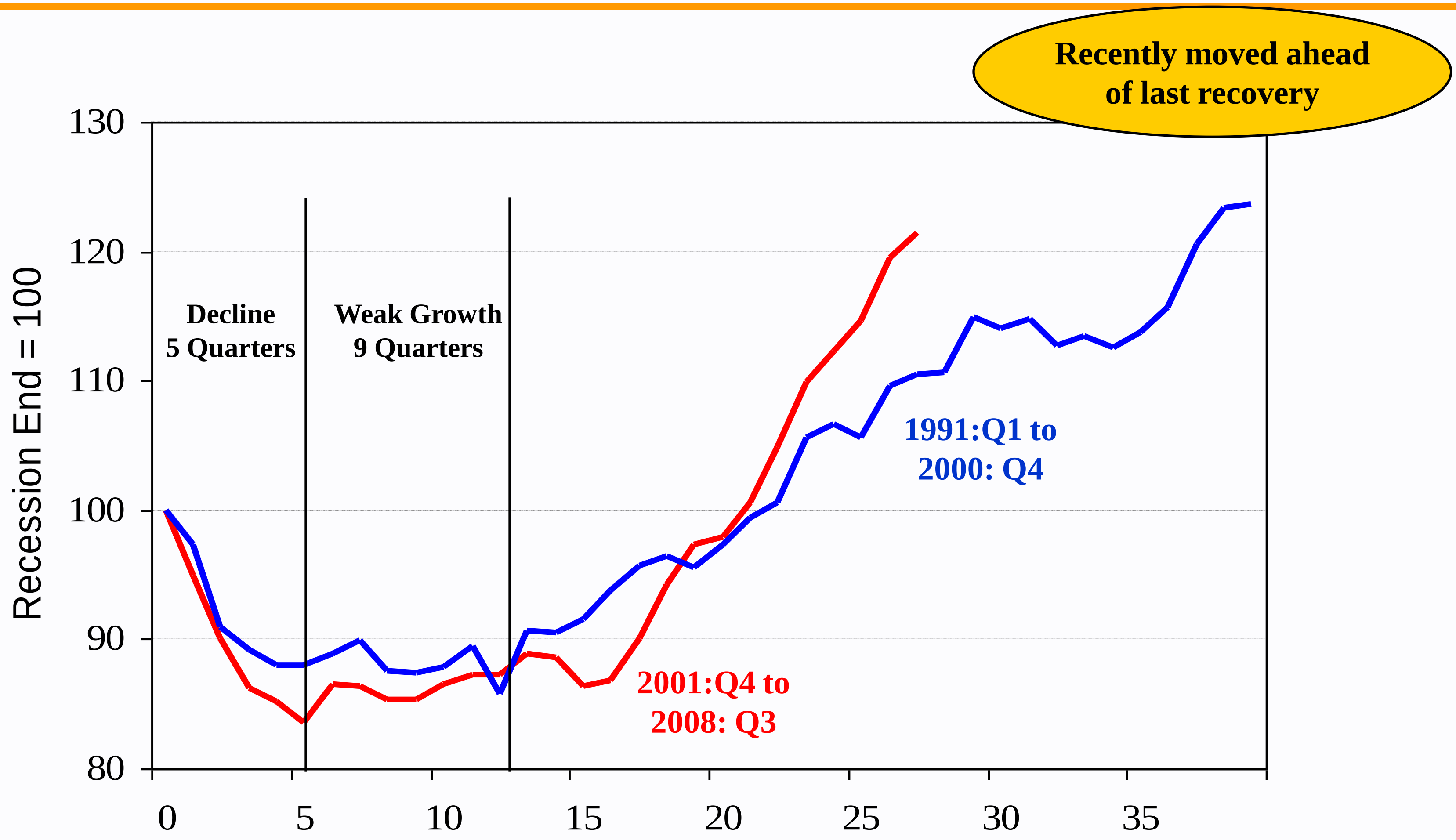
% Change in Building Orders





Source: McGraw-Hill/Business Economics

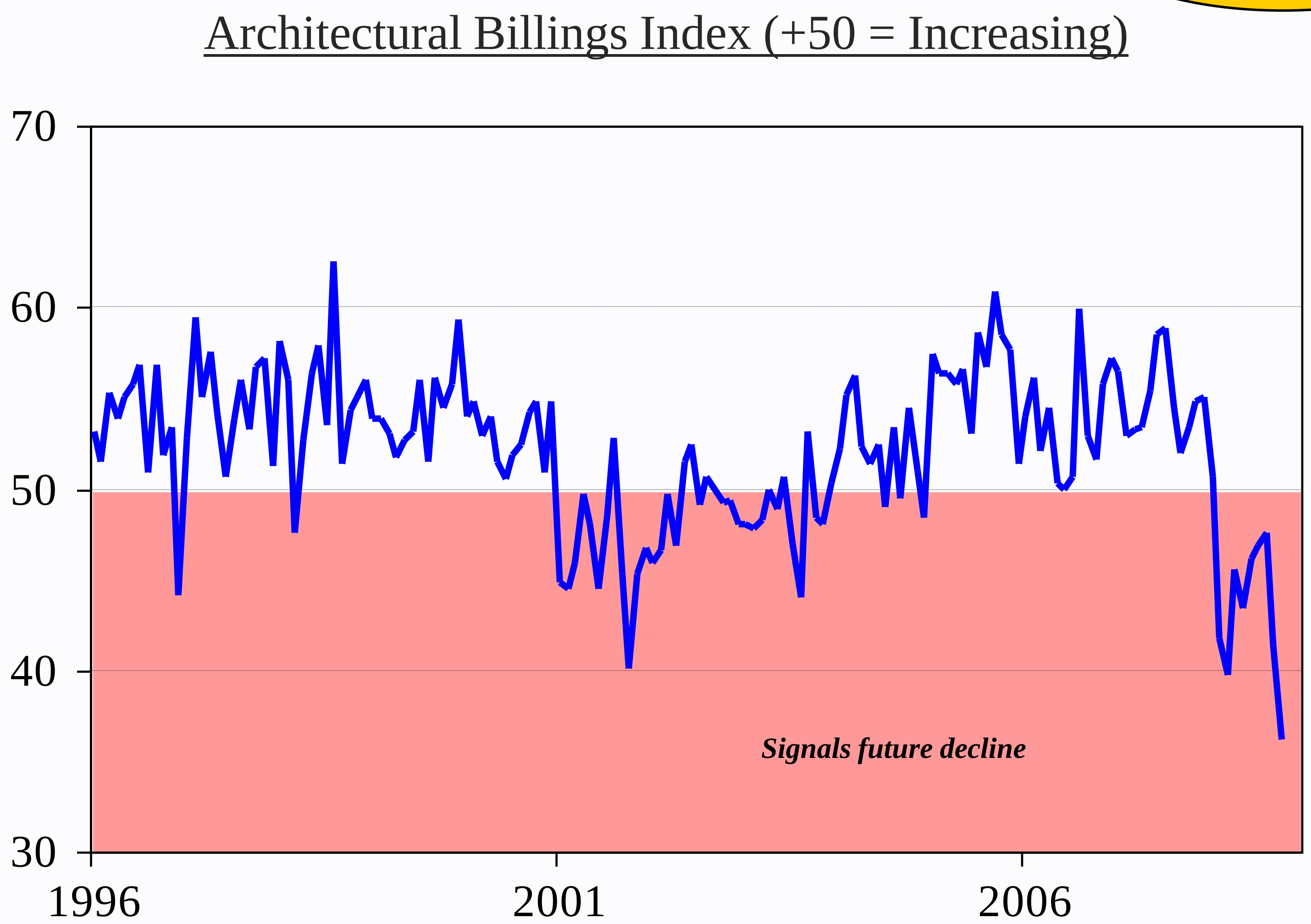
Recoveries in U. S. Nonresidential Structures



Source: Data from Bureau of Economic Analysis, Haver Analytics

A Leading Indicator Is Down

Signals worse decline than in last recession

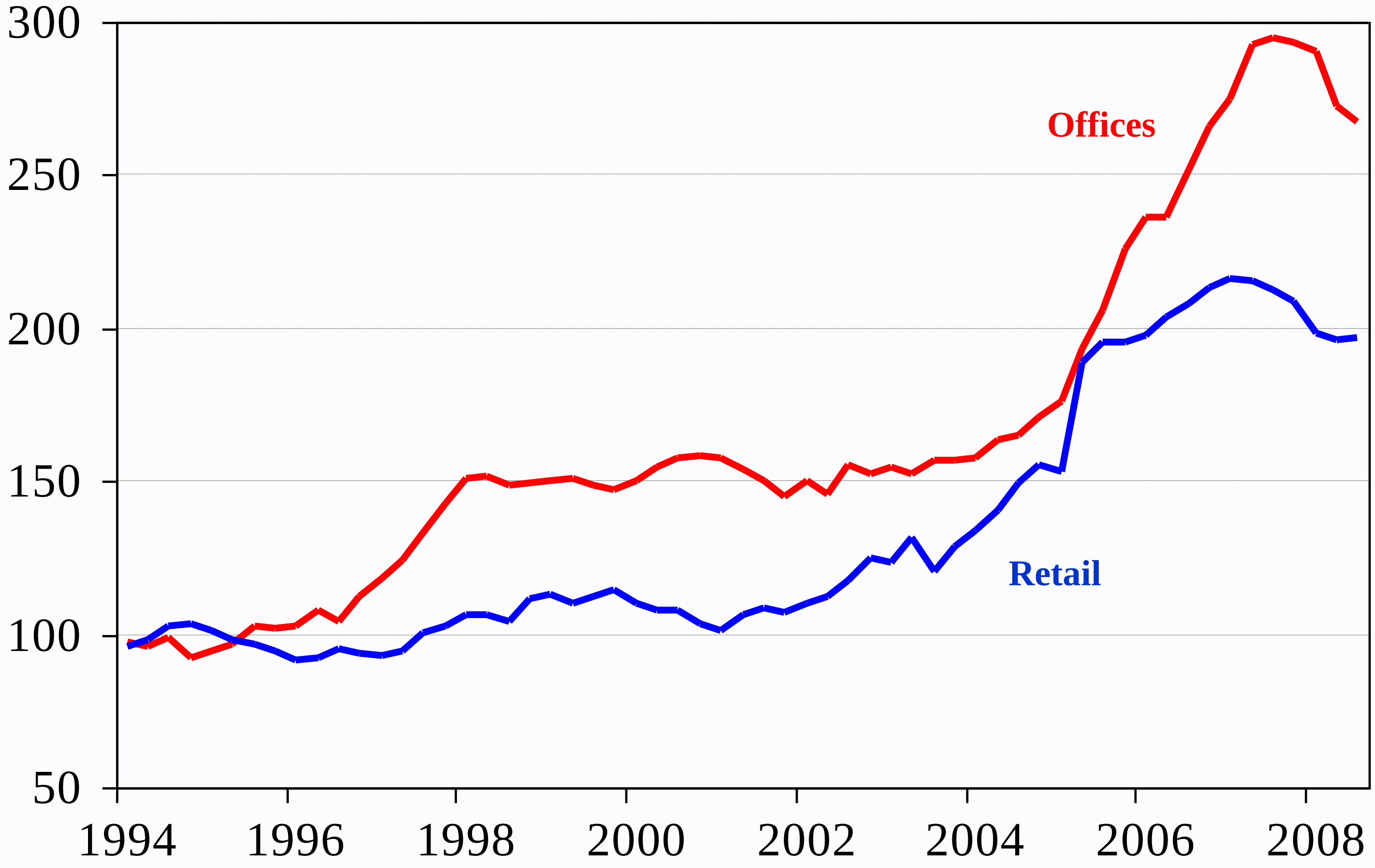


Source: Haver Analytics, American Institute of Architects.

Prices Are Dropping

Declined for several quarters

Price Indices (1st Quarter 1994 = 100)

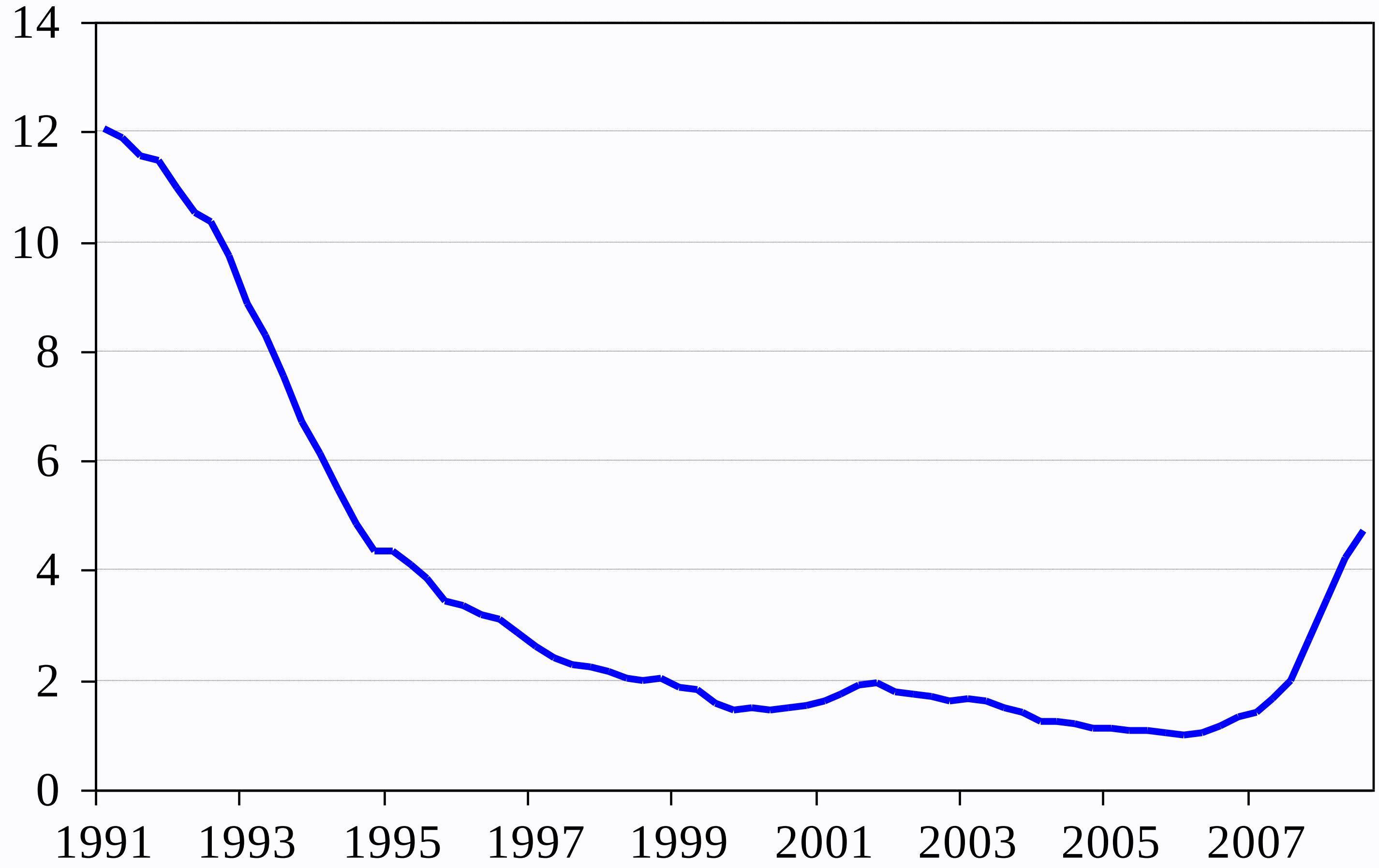


Source: Haver Analytics, MIT Center for Real Estate.

Delinquencies Are Rising

Additional problems for banks

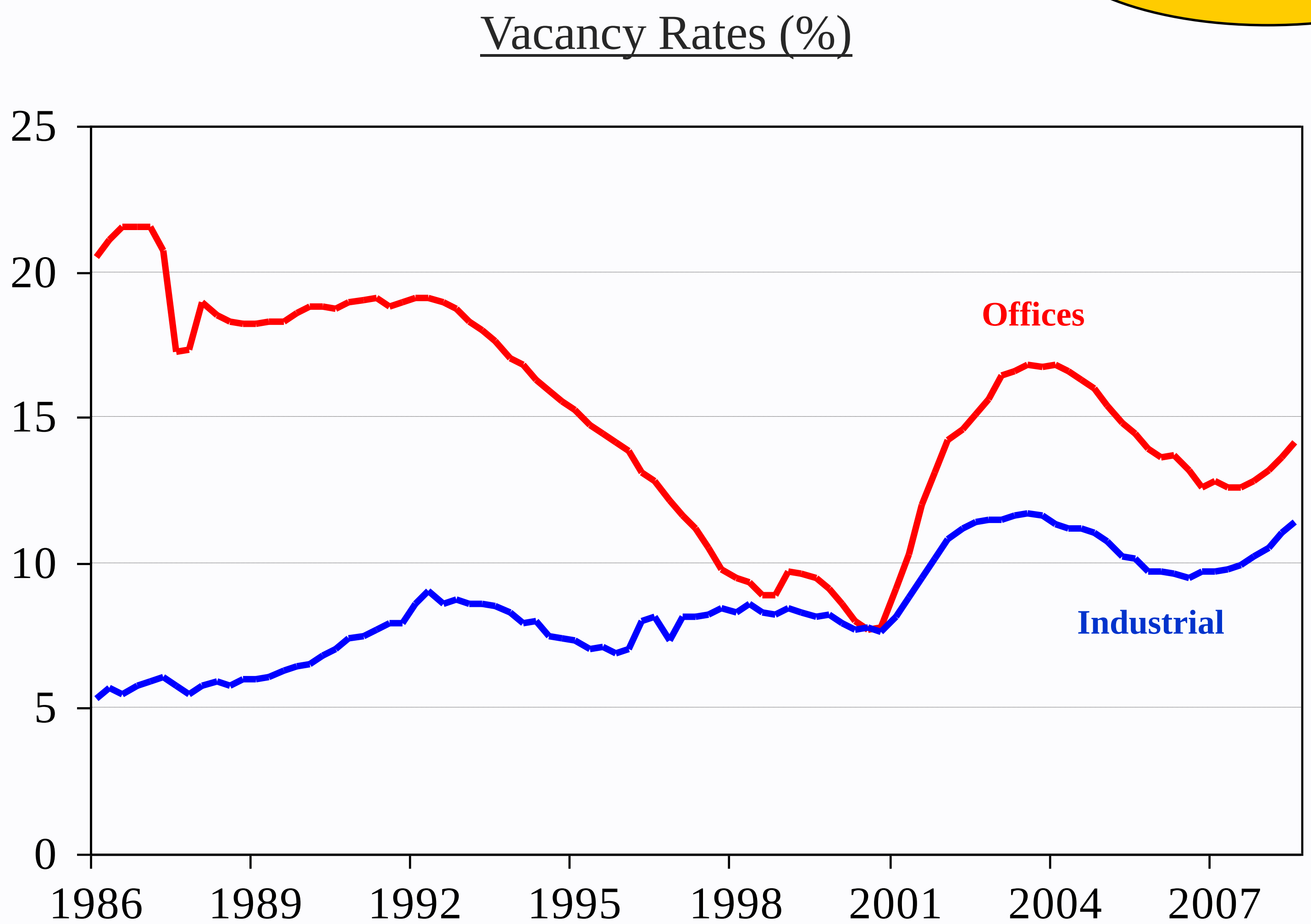
% of Commercial Real Estate Loans Delinquent at Commercial Banks



Source: Haver Analytics, Federal Reserve.

Vacancy Rates Are Rising

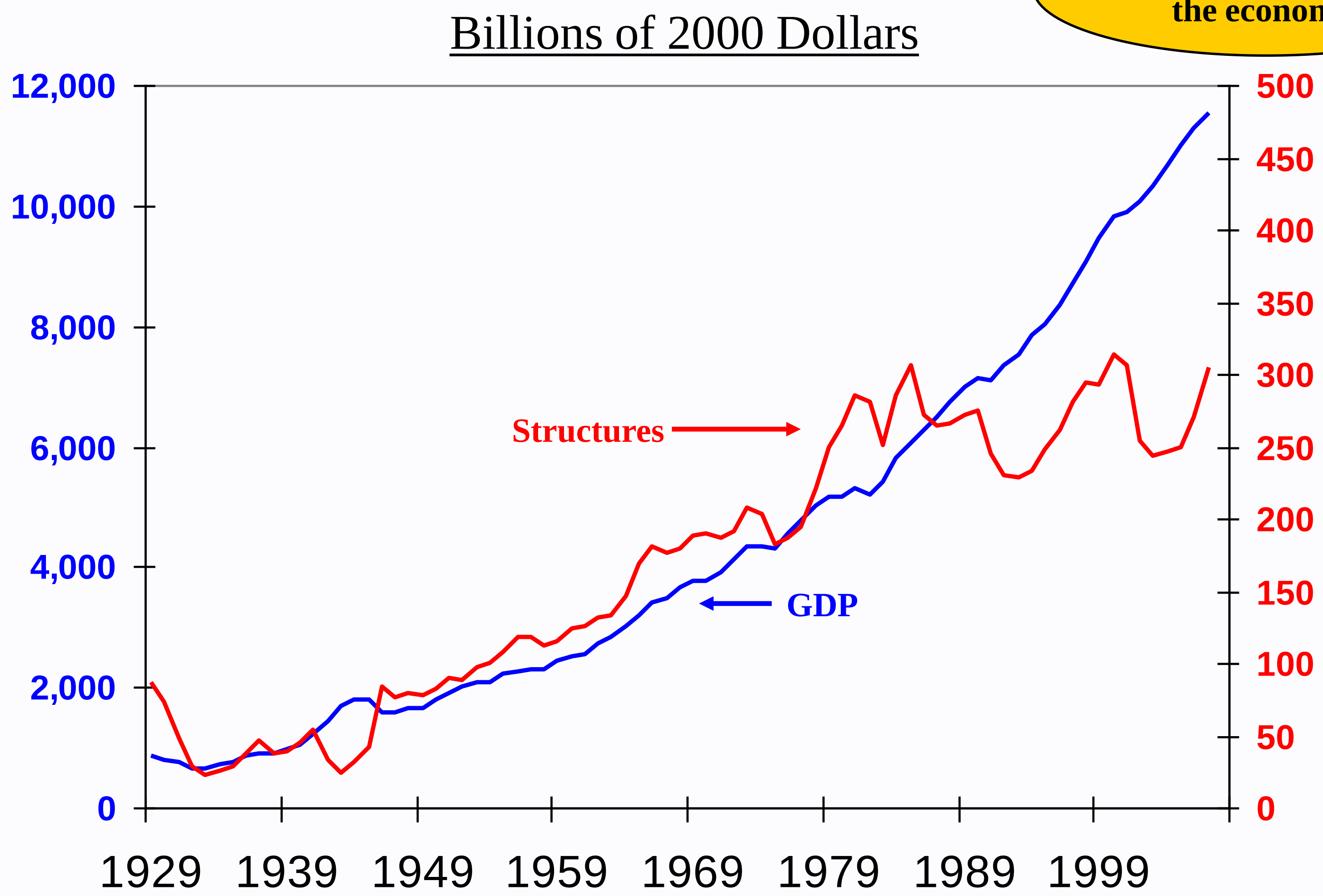
Bottomed at higher rates than in the last cycle



Source: Haver Analytics, CB Richard Ellis.

U. S. Growth and Construction since 1929

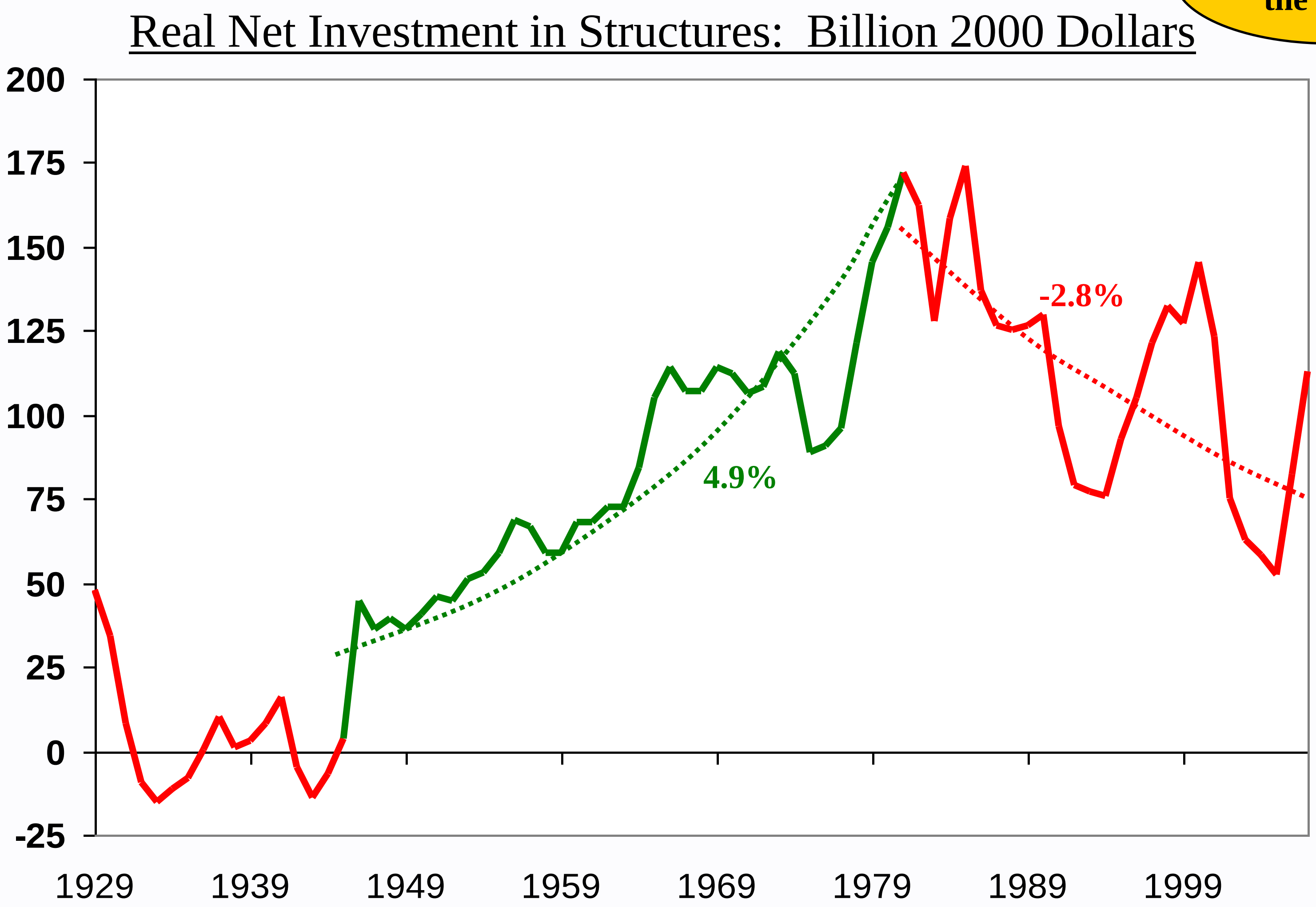
Construction lagging the economy.



Source: Haver Analytics, Bureau of Economic Analysis.

No Net Growth in U. S. Business Structures

Depreciating the stock.

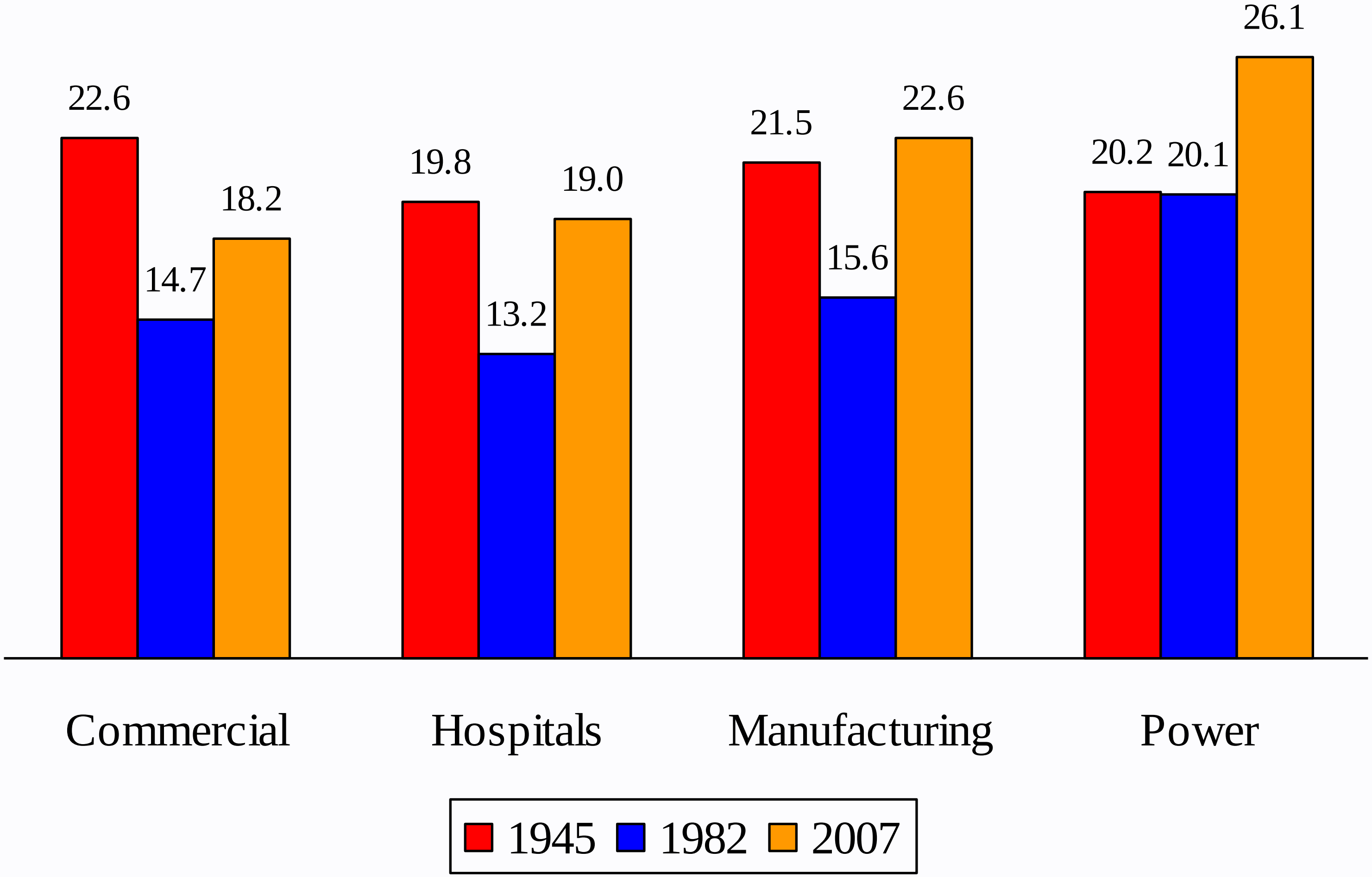


Source: Bureau of Economic Analysis, Haver Analytics

Structures Have Aged

About matching the oldest on record

Average Age of Private Nonresidential Structures (Years)

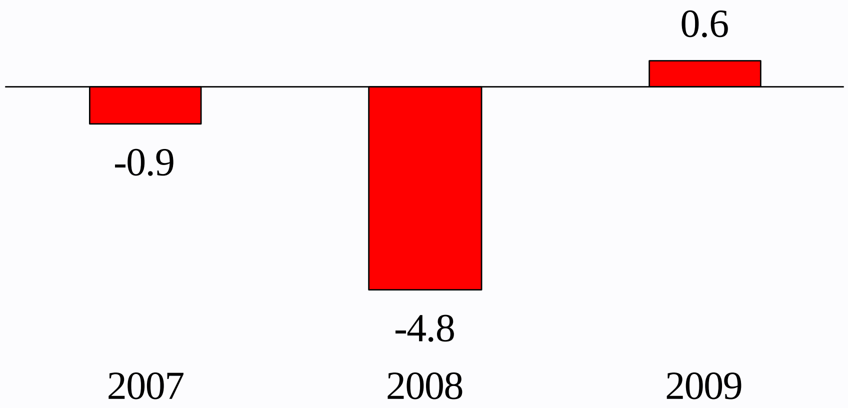


Source: Bureau of Economic Analysis, Haver Analytics

Nonbuilding Construction – More Delays

But we will probably try!

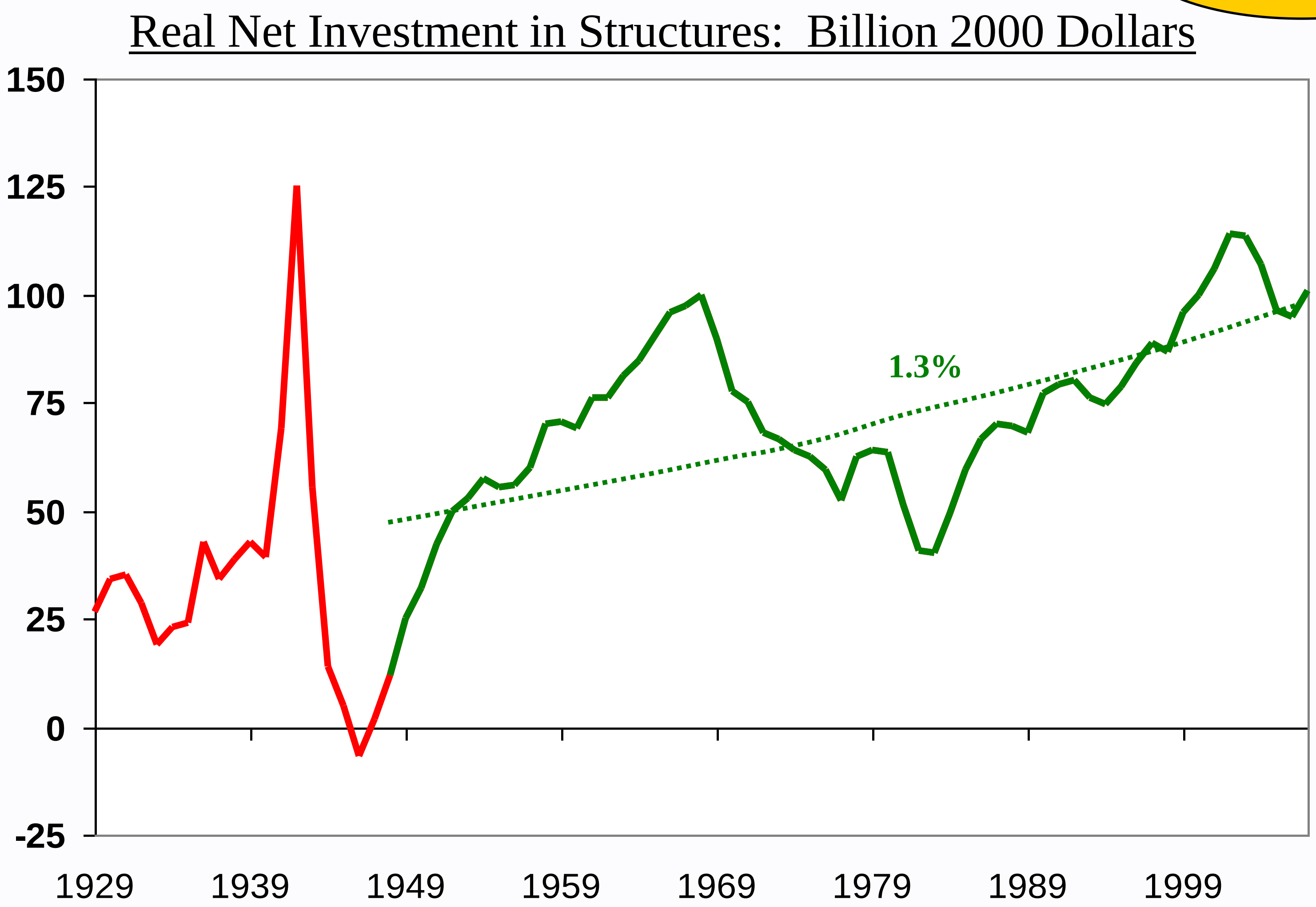
% Change in Nonbuilding Orders



Source: McGraw-Hill/Business Economics

Government Structures

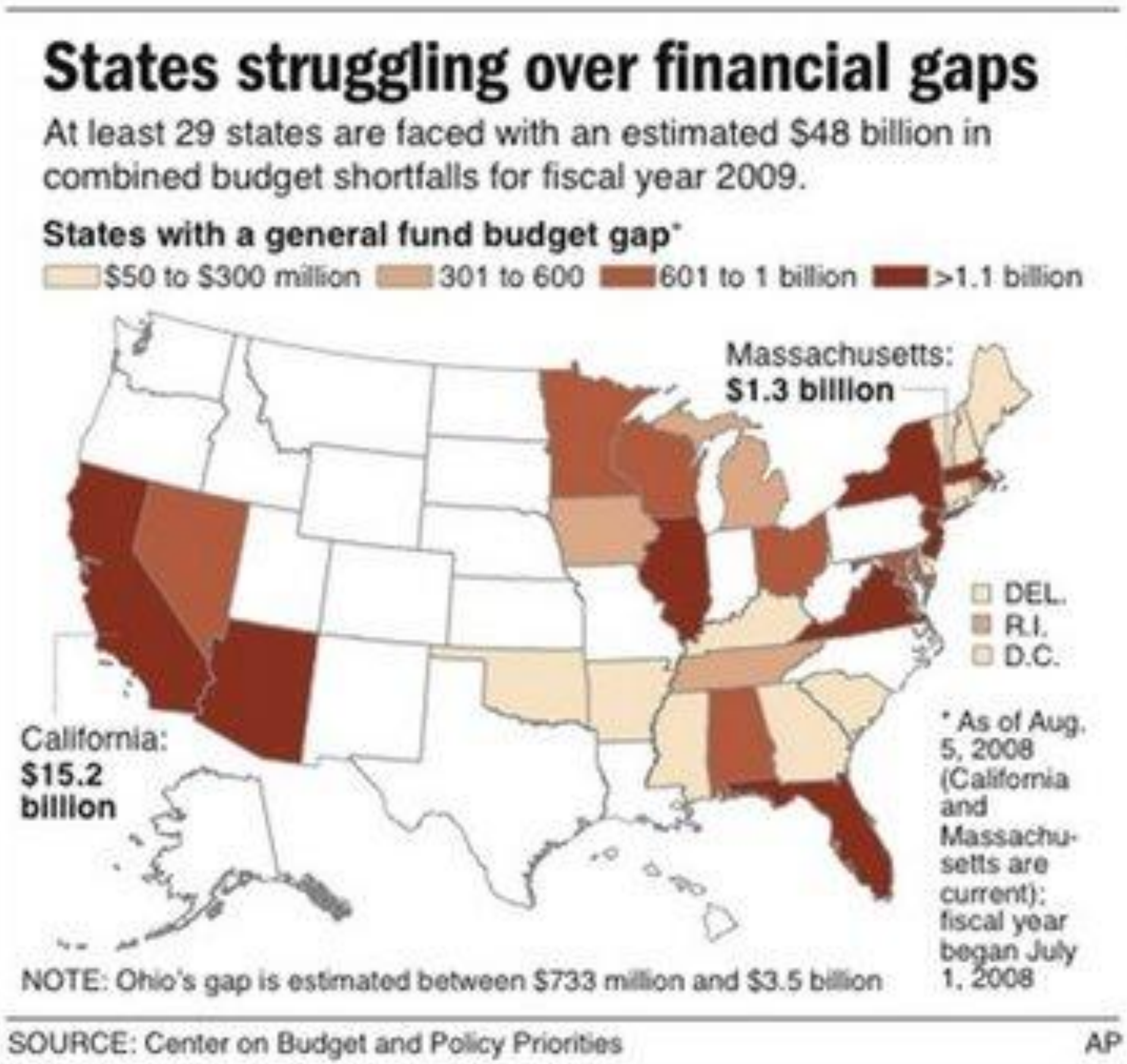
Inadequate investment.



Source: Bureau of Economic Analysis, Haver Analytics

State Budget Problems

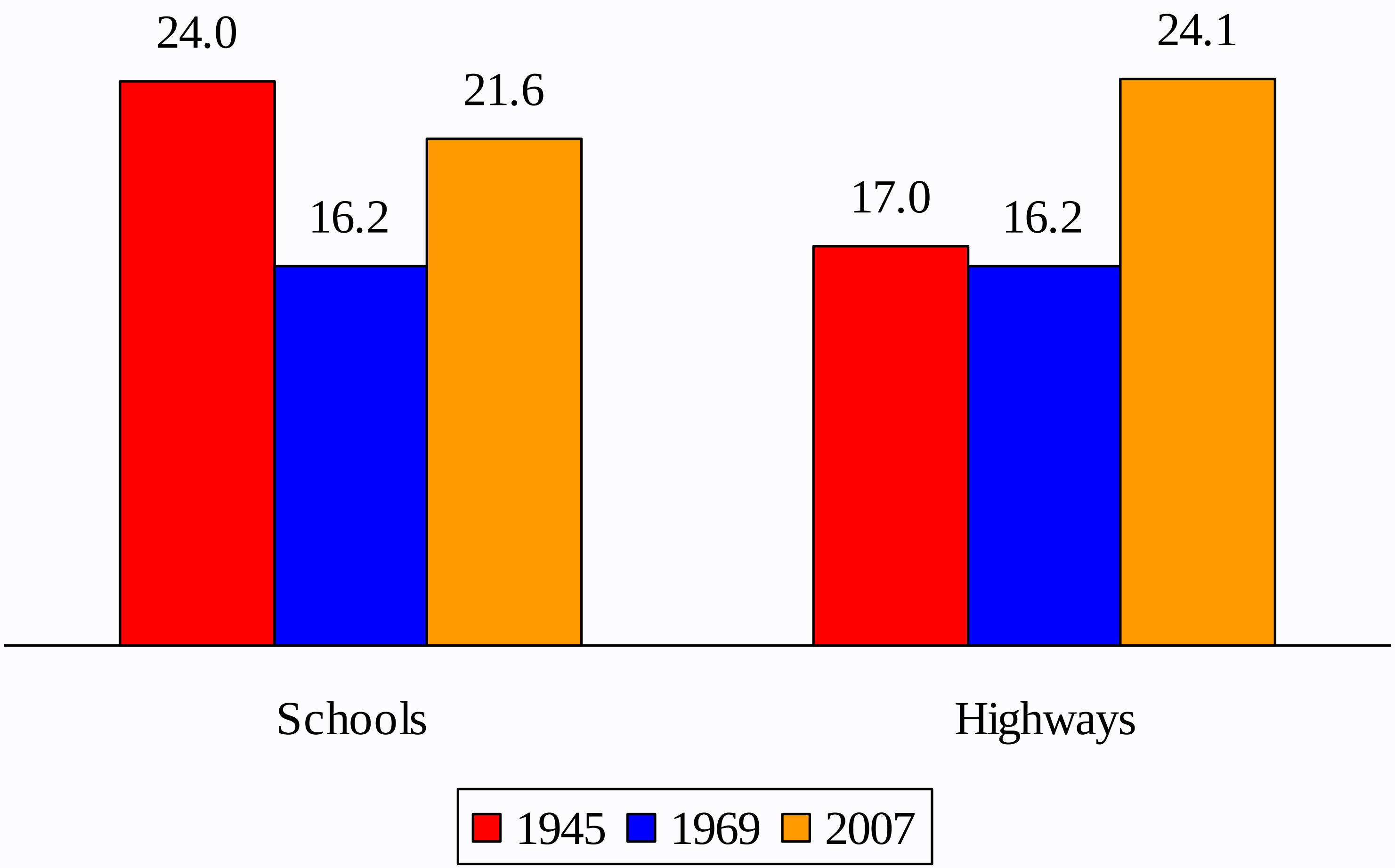
Will impact construction.



Government Structures Are Aging

Back to WWII ages

Average Age of Government Nonresidential Structures (Years)



Source: Bureau of Economic Analysis, Haver Analytics

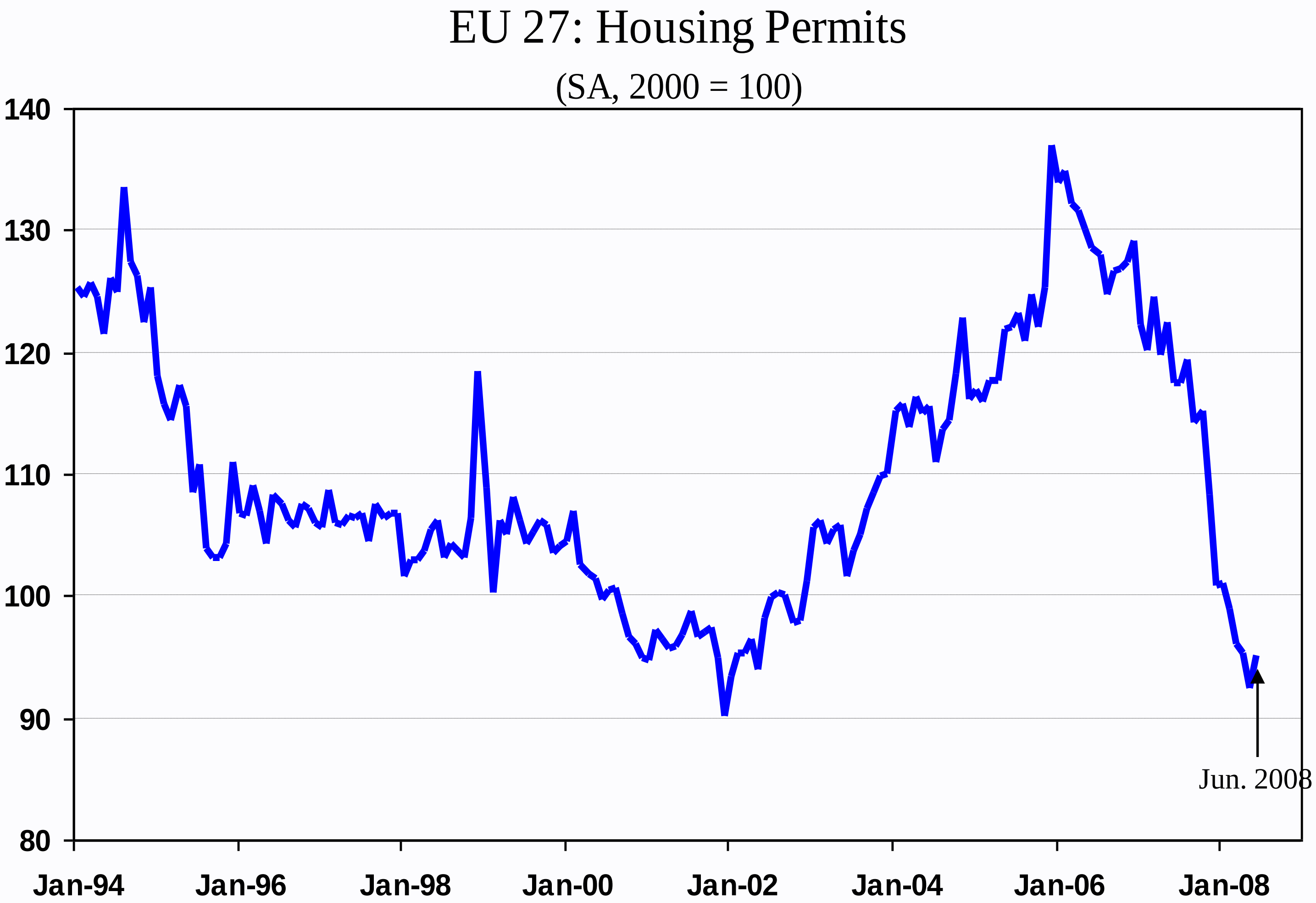
U.S. Infrastructure Indicators

1. 25% of bridges are structurally deficient or obsolete
2. 50% of waterway locks are obsolete
3. 20% of airports have runways that are in poor to fair condition
4. 30% of dams are at or over their designed lifespan
5. Traffic congestion costs $63 billion yearly

Source: Congressional Research Service, American Society of Civil Engineers, Bureau of Transportation, Federal Highway Administration

European Housing Permits

Turning down sharply



Source: Statistical Office of the European Communities, Haver Analytics

Developing Country Economic Indicators

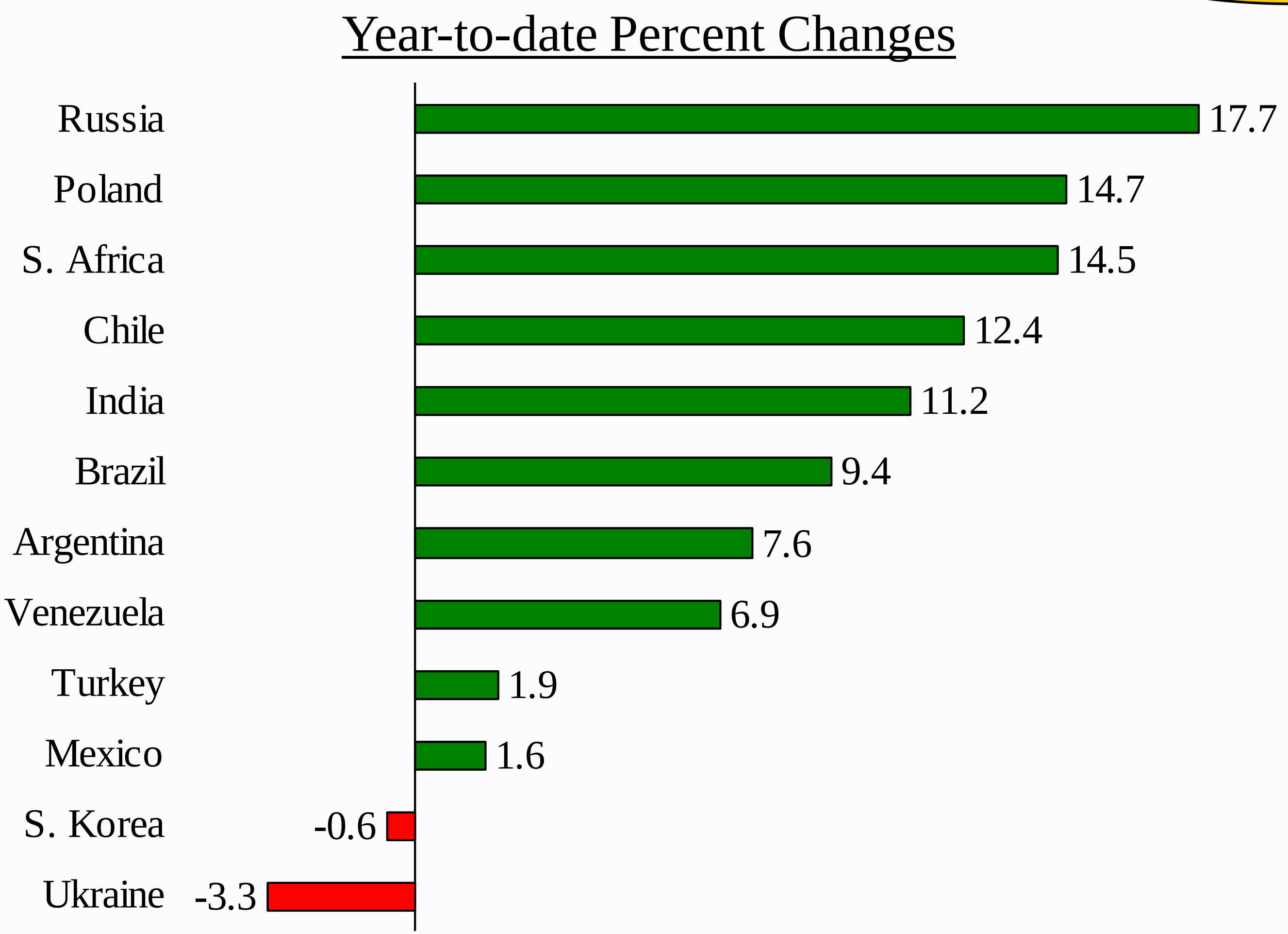
Still looking better than in the past

	1990s	Latest
GDP growth (%)	3.5	6.9
Inflation (%)	51.4	9.4
Current account (Billion $)	-65	785
Foreign Debt/GDP (%)	39	26
Liquid Assets (Trillion $)	1.1	8.5

Source: IMF/World Bank/Business Economics Estimate

Construction in Developing Countries

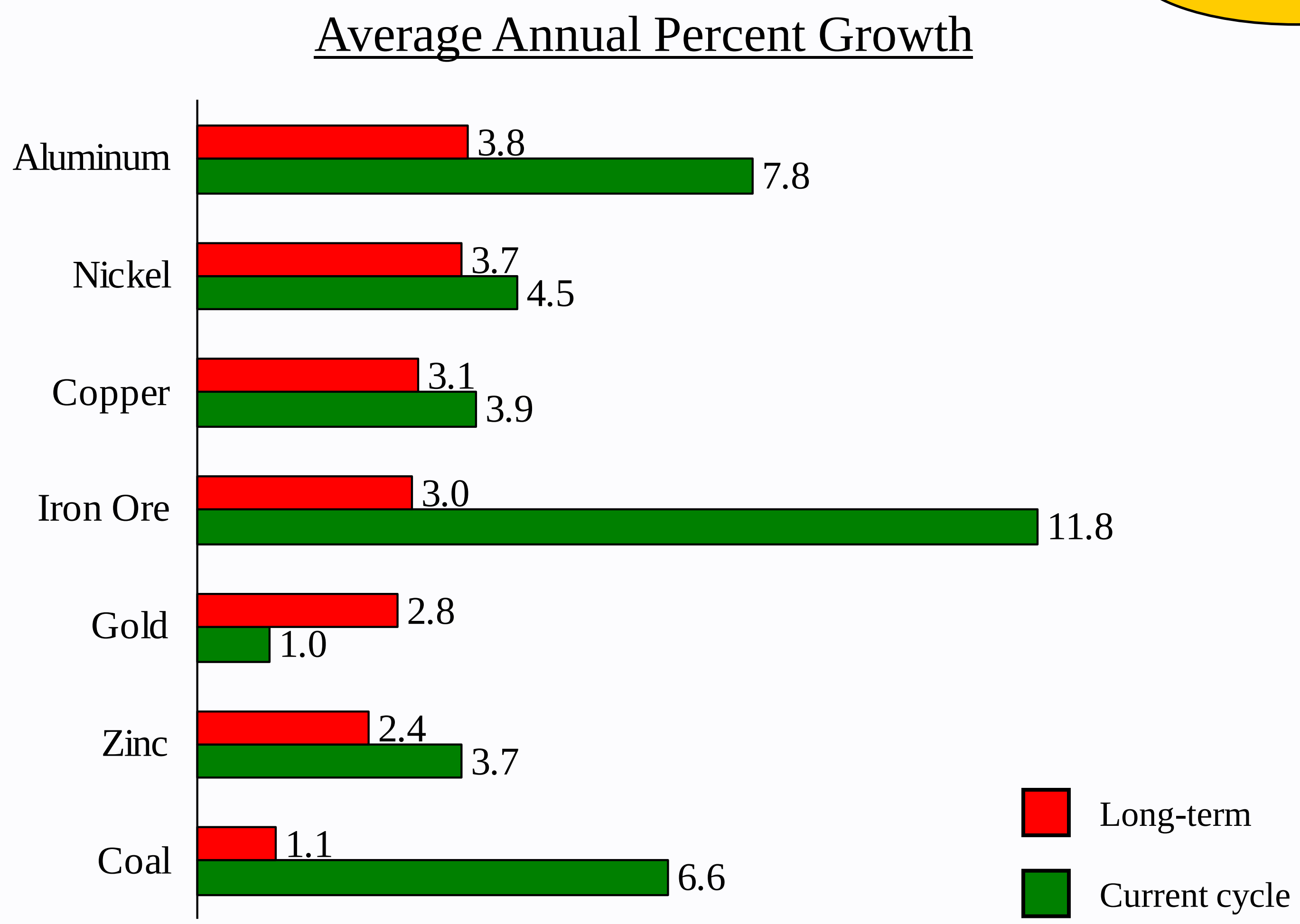
Most still showing good gains



Source: Haver Analytics

Mining Is a Growing Industry

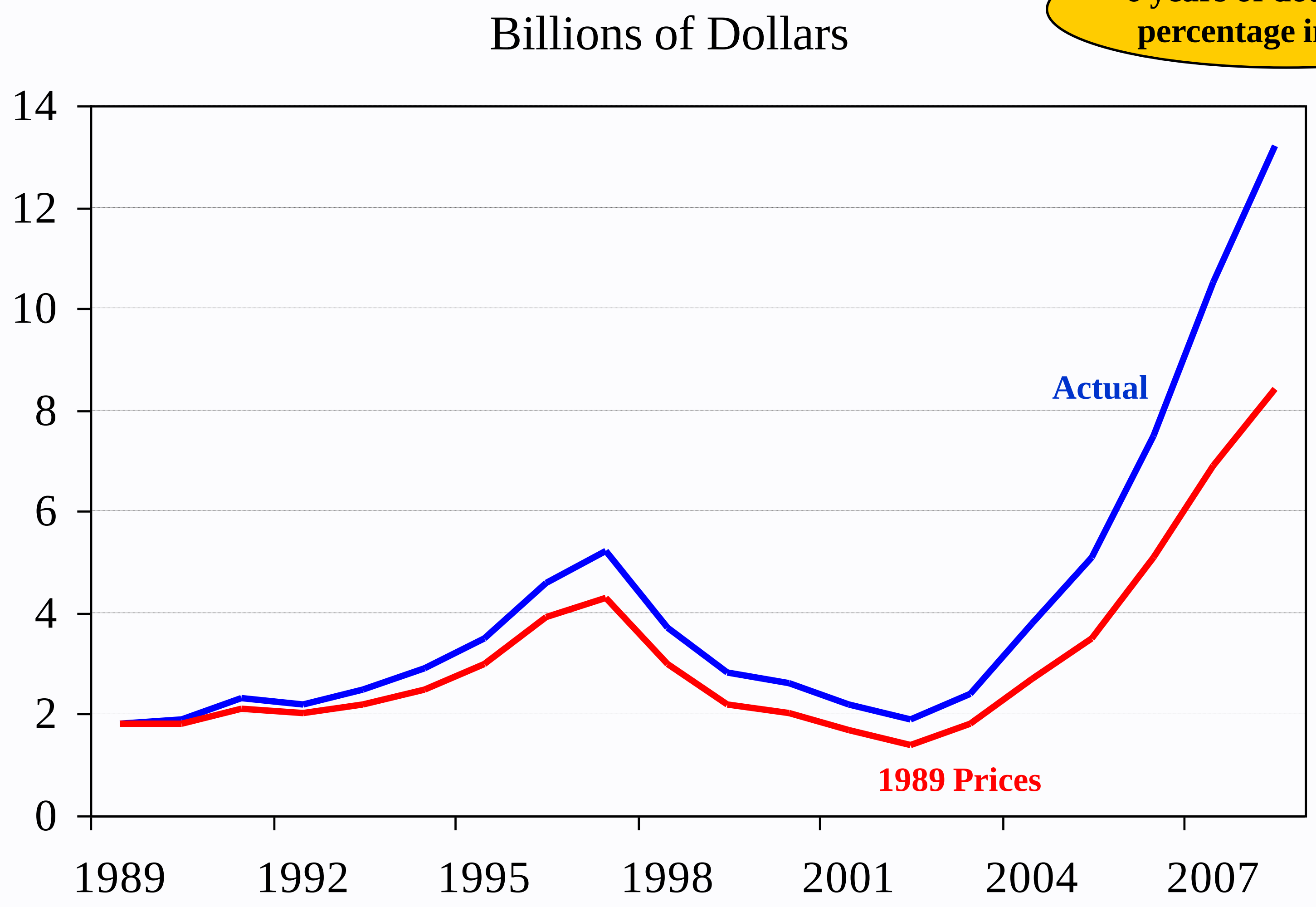
Strong growth this cycle



Source: U. S. Geological Survey

Worldwide Metals Exploration Budgets

6 years of double-digit percentage increases

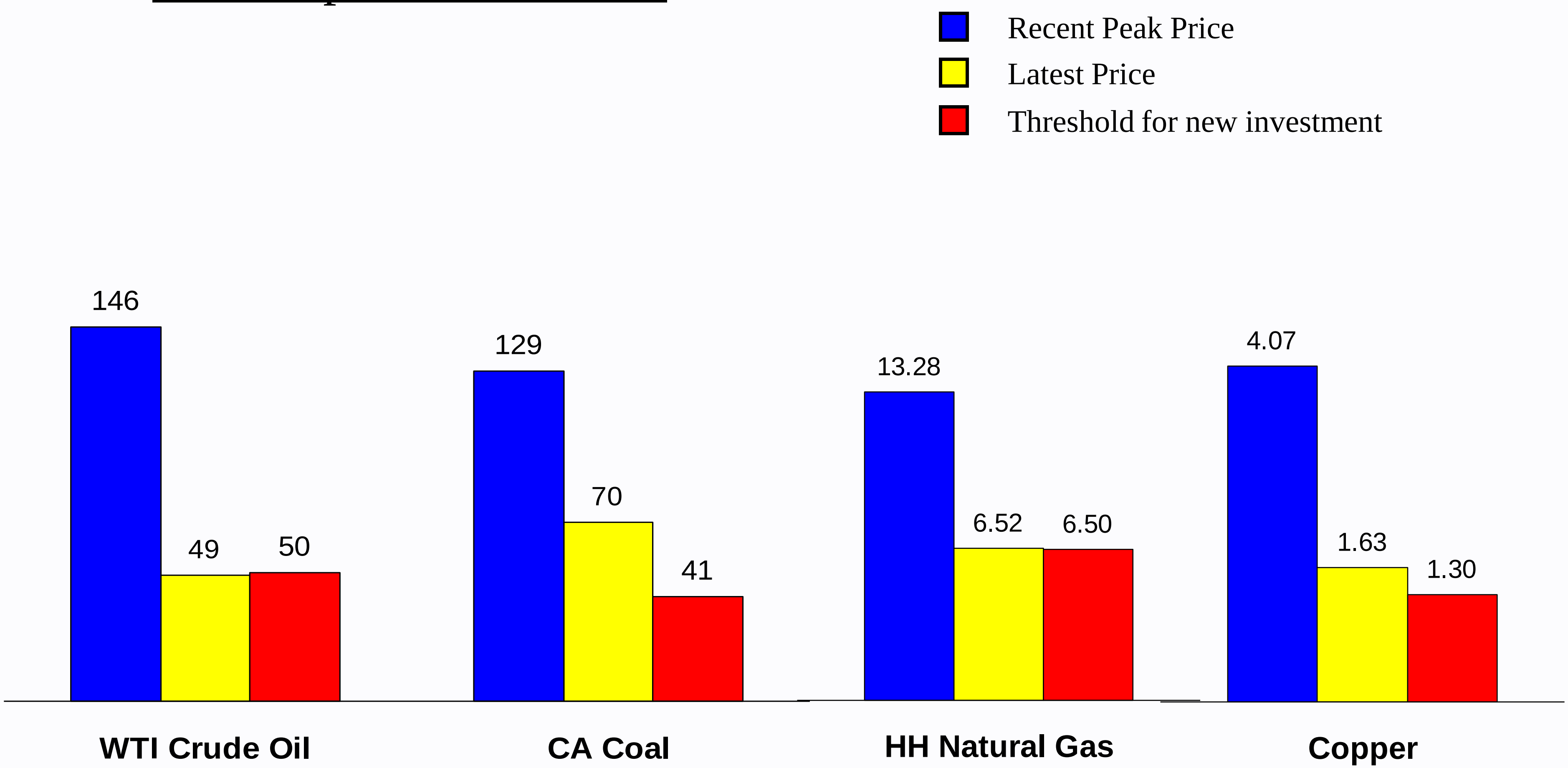


Source: Metals Economics Group/Business Economics' estimate of real spending

Commodity Prices

Prices still favorable for investment

Dollars per Market Unit



Key Points – 2009 Outlook

Cautious outlook; significant risks

Most developed countries in recession

- Construction is already declining
- Some recovery in U.S. in last half year
- No recovery in Europe or Japan in 2009
- Likely to see new lows in interest rates

Developing countries to fare better

- Still retain strengths shown in the current recovery
- Have halted or reversed policy tightening
- Expect most will use reserves to combat serious difficulties

Source: Caterpillar Financial Release, October 21, 2008, pp. 14-15.