

Three Financial Crises and The Economy

by

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Sub-Topics

- A. Three Financial Crises (Of Many)
- B. Short-Run Macro Economy Outlook
- C. Long-Run Macro Economy Outlook

Three Financial Crises: Through the Lens of Liquidity, Solvency and Government Intervention

A. 1931-1938

B. 1988-1995

C. 2007-?

Liquidity and the Classic Financial “Mismatch”: Short-Term Liabilities and Long Term Assets

- A. 1931 to 1938; fear prevails:
 - 1. Bank Runs
 - 2. Credit Freeze.....Great Depression
- B. 1988-1995
 - 1. A Few Bank Runs (Primarily S&L's)
 - 2. Selective Credit Freeze in Commercial Real Estate
- C. 2007-?
 - 1. Fear Induced Bank Runs (e.g. Wachovia, Indy Mac, Bear and Lehman)
 - 2. Financially Much More Complex (“Originate and Hold” vs. “Originate and Distribute” e.g. Securitization)
 - 3. Intermittent Credit Problems with Accompanying Fear. Some Markets Frozen (Especially Commercial Paper).....Recession

Solvency and Financial Institutions: $Assets=Liabilities + Net\ Worth$

- A. 1931 to 1938:
 - 1. Asset Default (Global)
 - 2. Negative Net Worth Leads to Roughly 7,000 Banks (Usually Rural and Small) Merged or Closed
- B. 1988-1995
 - 1. Asset Default (U.S.)
 - 2. Negative Net Worth Leads to Roughly 7,000 Banks (Primarily S&L's) Merged or Closed
- C. 2007-?
 - 1. Asset Default, Collective Market Realization of Risk Mispricing, especially Sub-Prime Default Risk, "Mark to Market" CDO Type Securities Become Non-tradeable (Global)
 - 2. Negative Net Worth Leads to Bank Mergers and Closings

Government Intervention: 1931-1938

- A. The Fed or “Lender of Last Resort” Fails Miserably...Bank Runs.....Confidence Shattered Across Financial Markets
- B. Reconstruction Finance Corporation (RFC) Helps Restore Capital
- C. Emergency Banking Act, “Bank Holiday” and Insolvency...”Transparency”
- D. Glass-Steagall and the FDIC
- E. Lend Lease and WWII....Confidence Largely Restored

Government Intervention: 1988-1995

- A. At First, the Fed and FSLIC Working Together *Quickly* Find Buyers for S&Ls. Mergers...Very Few Bank Runs.....Confidence Shaky but Workable
- B. As Depth of the Problem Becomes Apparent, **Resolution Trust Corporation (RTC)** Created to Absorb and Eventually Market All Commercial and Residential Property Assets of Insolvent S&L's and Banks
- C. Danger.....Pervasive Credit Freeze....Continually Lurked Behind the Scenes in This Crisis but Real Fear was Never Really an Issue Because of the *Resolute* and *Speedy* Action of the Government. Confidence was Quickly Restored

Government Intervention: 2007-? Act I

- A. Sub-Prime ARM Defaults Overwhelm Several European Conduits & SIV's Holding Securitized Debt. What's On Their Balance Sheets? In September 2007 Fed and ECB Quickly move to Provide Liquidity. Confidence Shaky but Workable
- B. Nov-Dec 2007. Sub-Prime Defaults Begin to Seriously Reduce Capital of U.S. Investment Banks the Original Source of Many Sub-Prime Securities. Private Infusion of Capital. Fed Employs "Exigency Rules" and Accepts Bank Hard to Trade Assets as Collateral for U.S. Government Securities. (Primary Lending Facility). Confidence Shaky but Workable
- C. March 2008. More of the Same with Increased Lending Flexibility for the Fed. Bank Mergers in the Works for the likes of Countrywide, Washington Mutual, Indy Mac and etc.

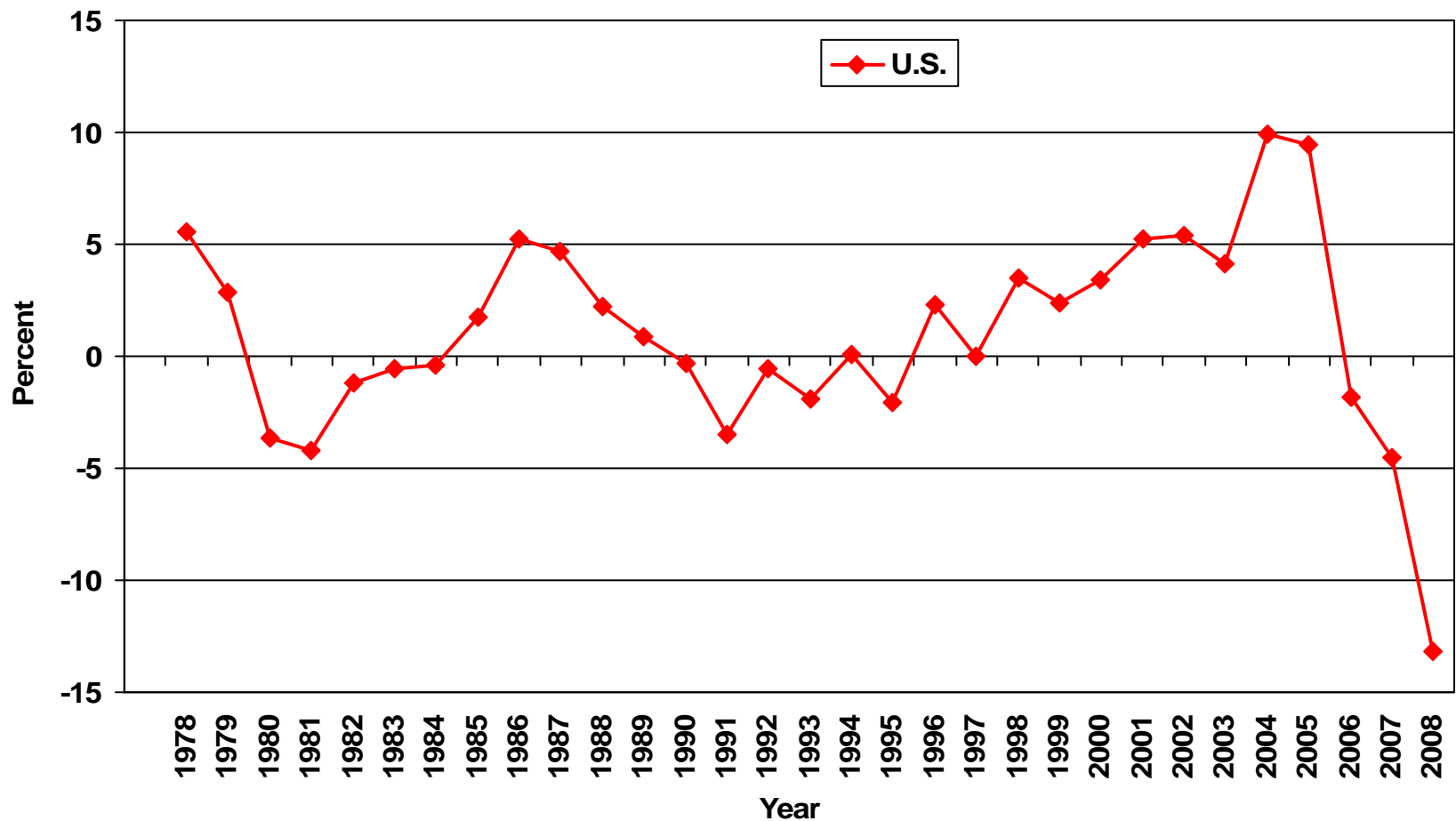
Government Intervention: 2007-? Act II

- A. August 2008. Fannie & Freddie Bailed Out in Order to Protect Bond Holders Which Include Banks, Pension Funds and Insurance Companies. Bank Mergers for the Likes of Wachovia. Confidence Getting Very Shaky
- B. Lehman Left to Die. AIG is Holding Considerable Amount of Lehman's Defaulted Commercial Paper...Whoops. Fed Intervenes Infusing AIG with Capital. Confidence in the Commercial Paper Market is Shattered. Systemic Risk Now Apparent even to Congress?

Government Intervention: 2007-? Act III

- A. Congress and Treasury Fail to Quickly Arrive at Workable Plan to End Systemic Crisis. Crisis Accelerates Internationally. Panic Prevails, Credit Freezes in Many but not All Markets.
- B. TARP Passed and Broadened by Treasury to Include an Initial \$250 Billion for Capital Infusion into Banks. Fed Extremely Active in the Provision of Liquidity and Asset Exchange. International National Action and Coordination of Efforts to Prevent Illiquidity and Insolvency.
- C. A Slow De-leveraging of the Industrial West. Credit Slowly Returns in All Markets.
- D. Rules for Adults in the Securities Markets.
- E. Necessary Condition: House Prices Must Stabilize.

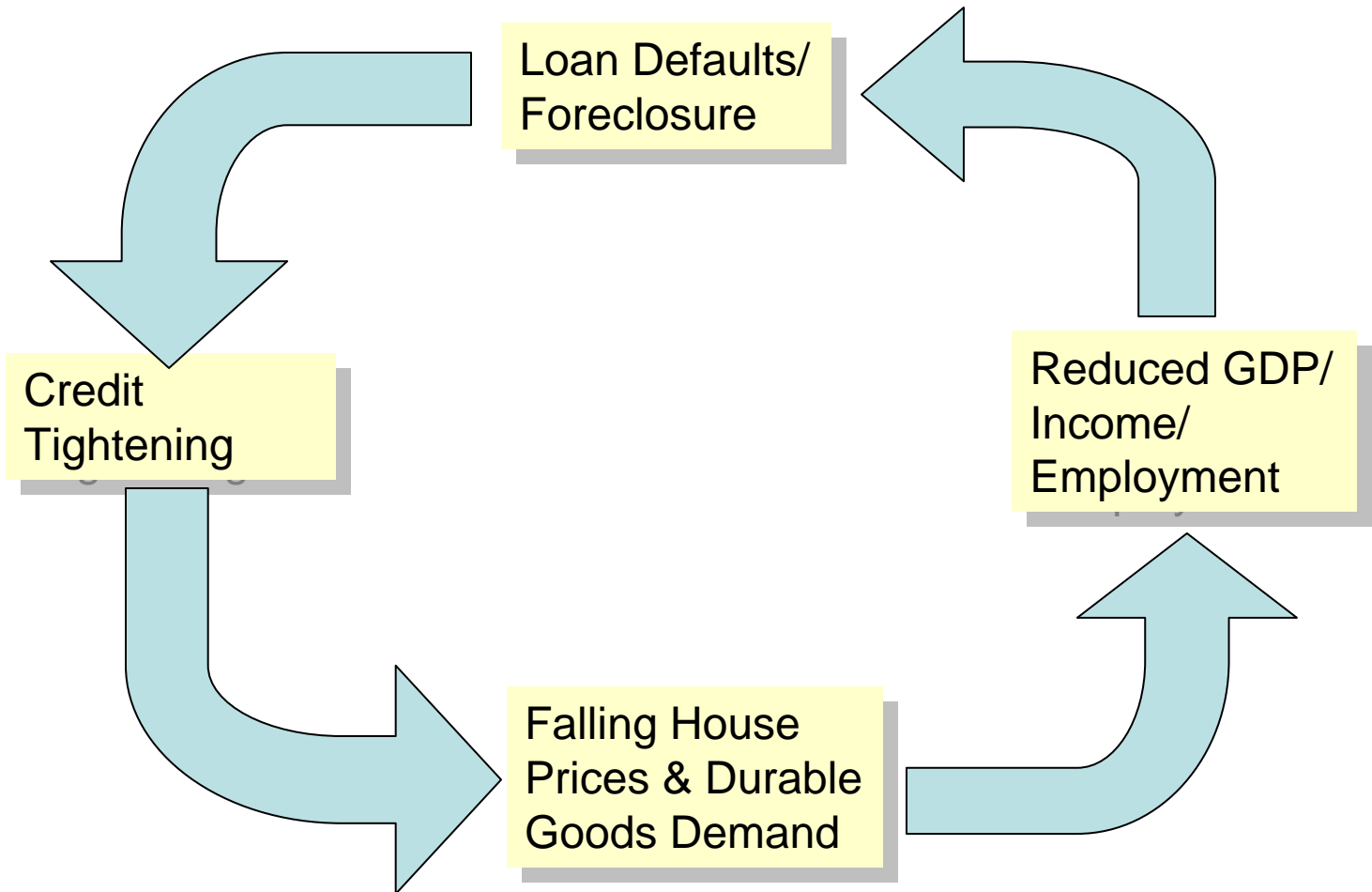
Annual Percent Change in U.S. Real Housing Prices (1978-2008)



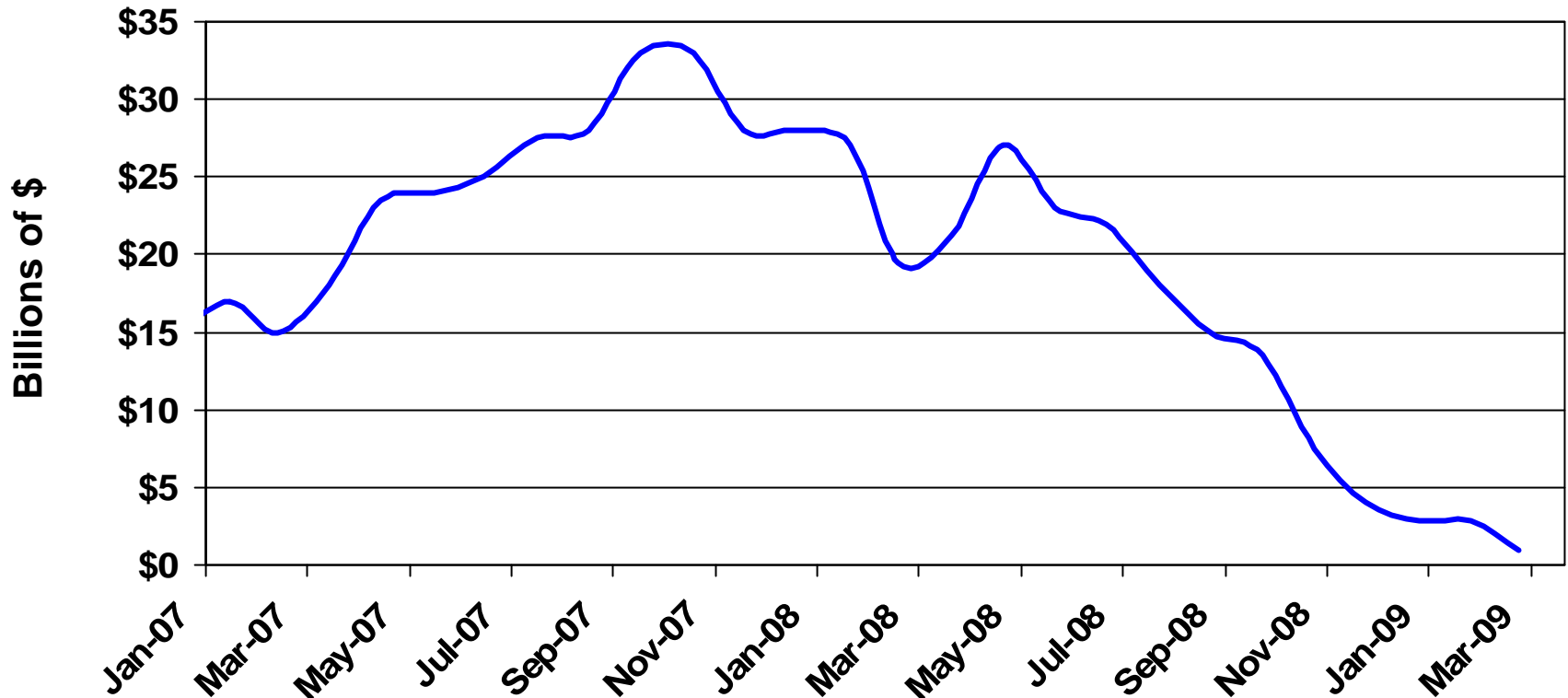
Source: U.S. Census Bureau, Nation Association of Realtors, OFHEO and the Old Dominion University Economic Forecasting Project

* 2008 data are forecasted

Danger: Potential For An Economic “Do Loop”

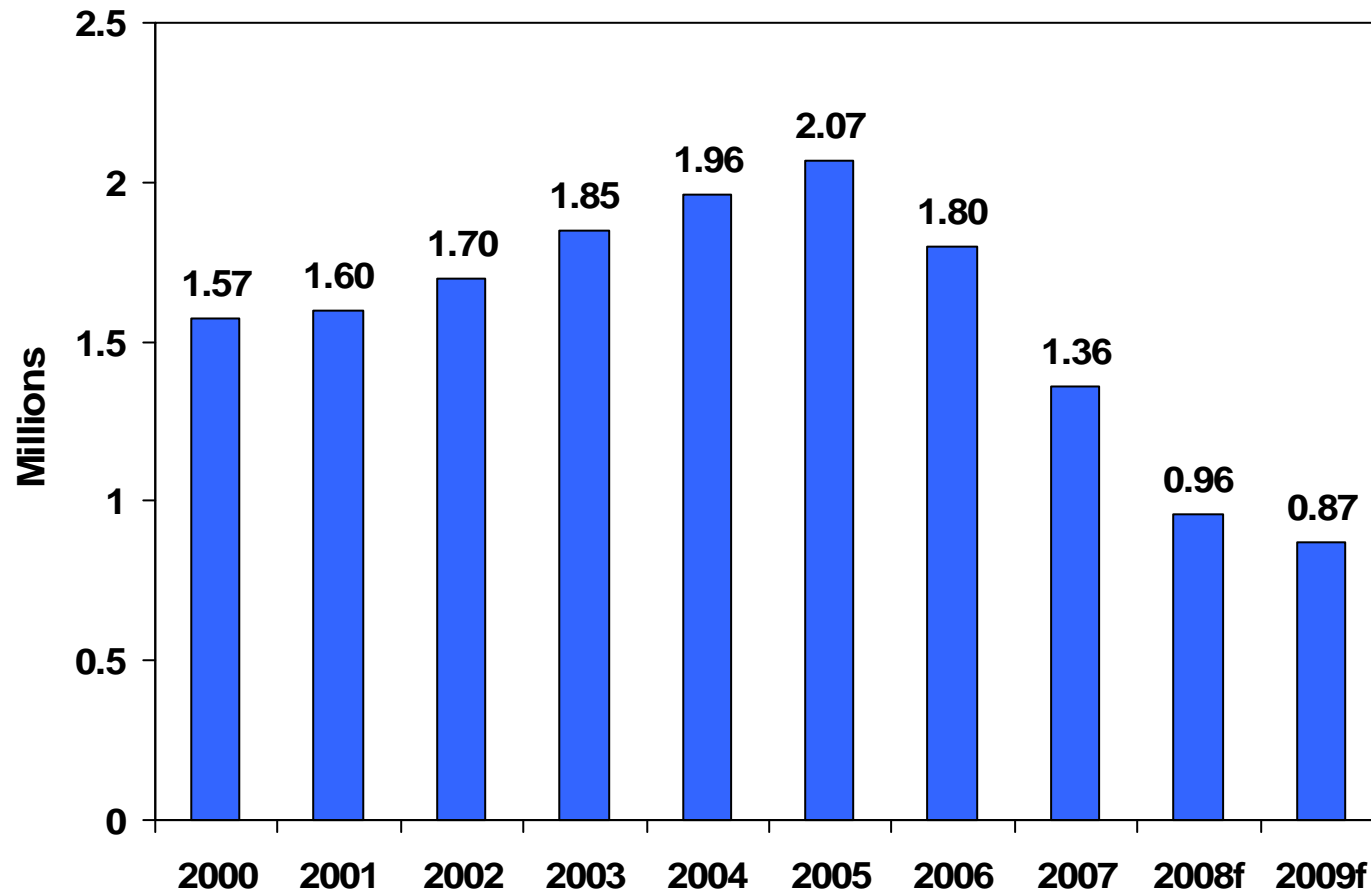


Estimated Sub-Prime ARM First Resets (Billions of \$)



Source: International Monetary Fund, Credit Suisse and the Old dominion University Economic Forecasting Project. Data are approximations.

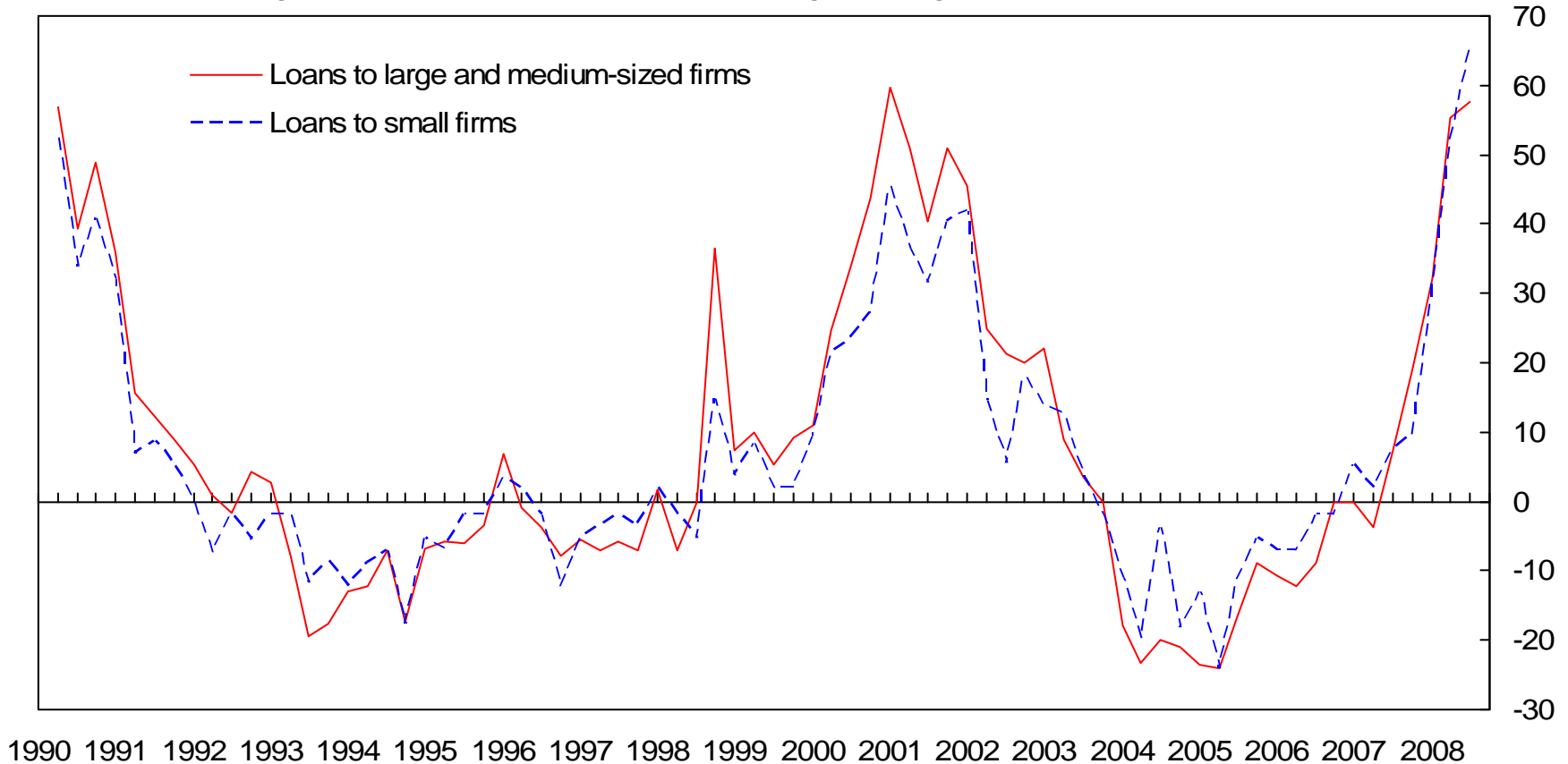
U.S. Annual Housing Starts (2000 to 2009)



Source: U.S. Bureau of the Census and Old Dominion University Economic Forecasting Project. e: estimated f: forecasted

Measures of Supply and Demand for C&I Loans, by size of Firm Seeking Loan

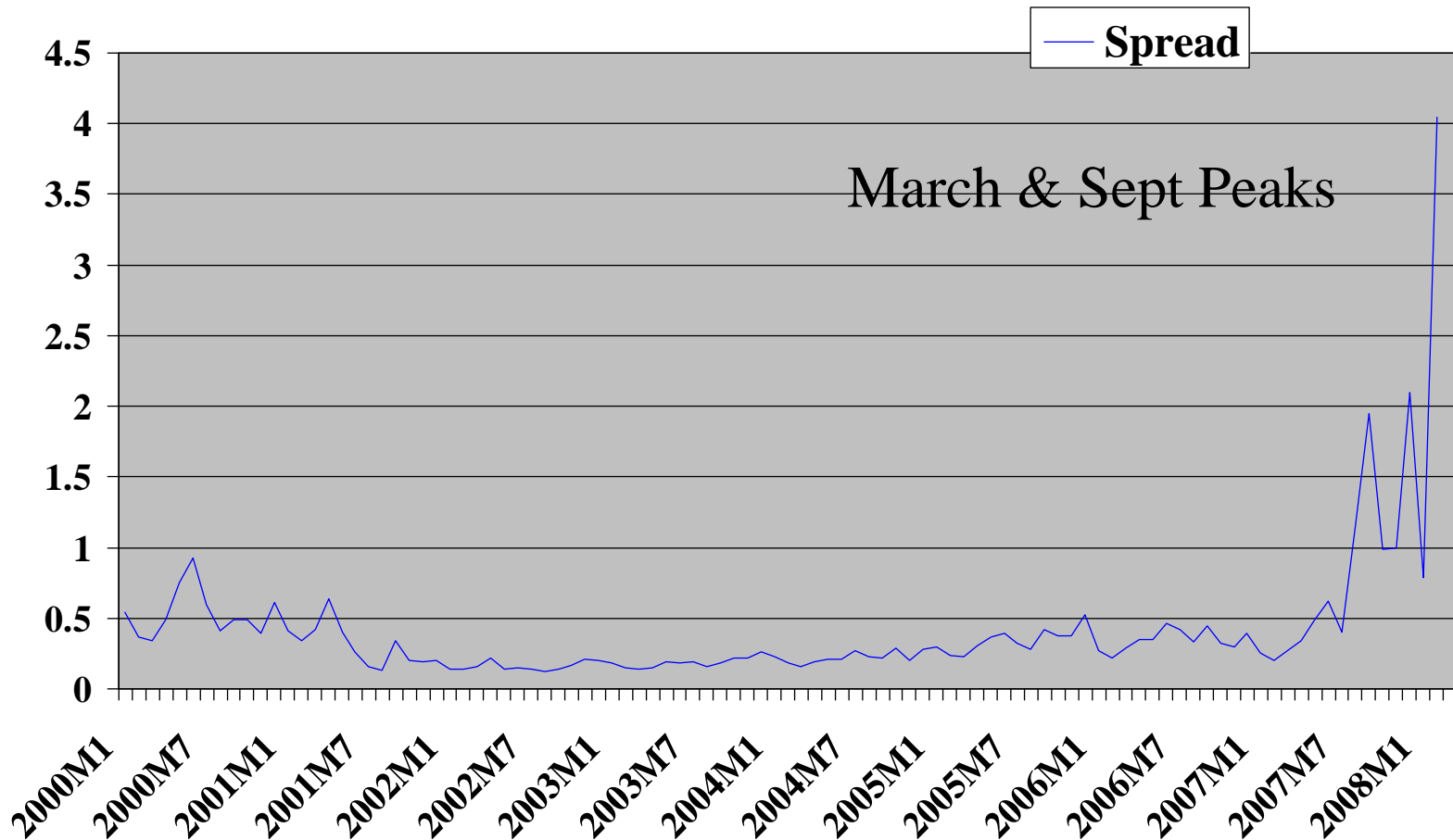
Net Percentage of Domestic Respondents Tightening Standards for C&I Loans



Source: Federal Reserve Bank

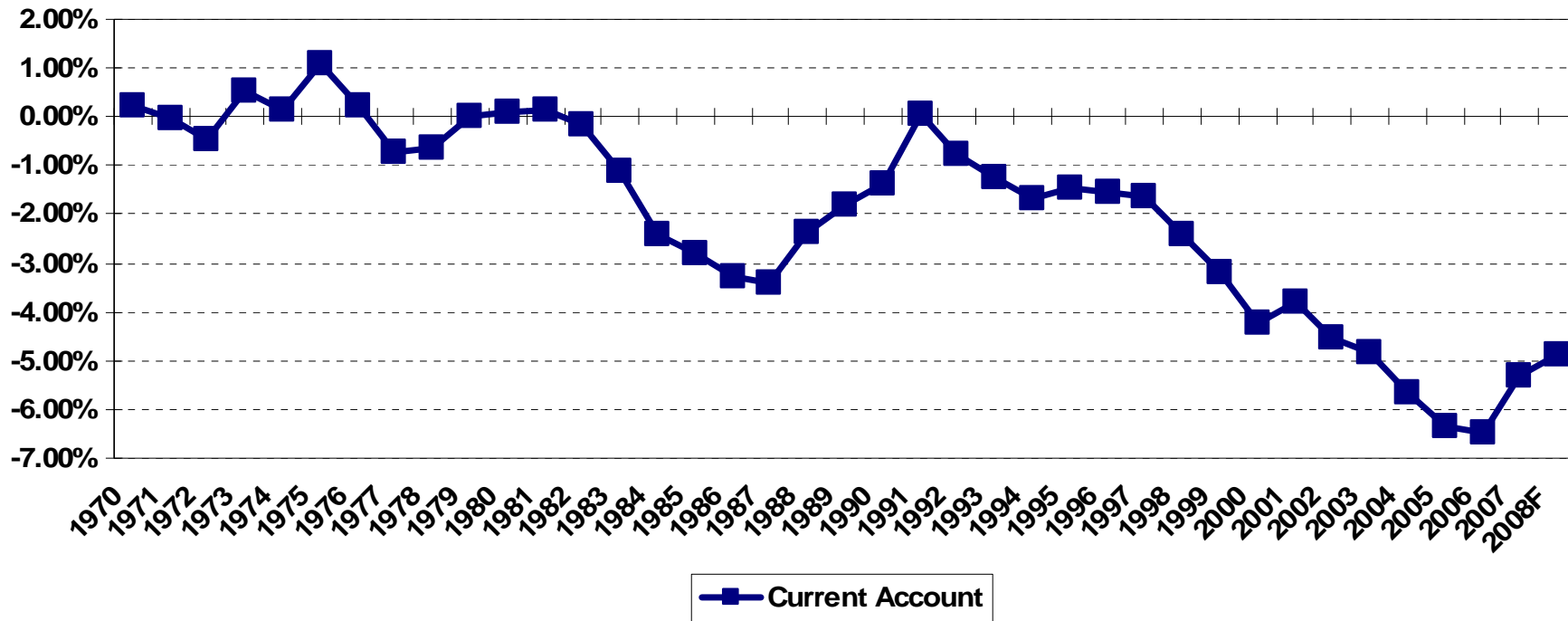
Risk Spread

LIBOR (3-month) vs. T-Bill (3-month) or the “Fear Meter”



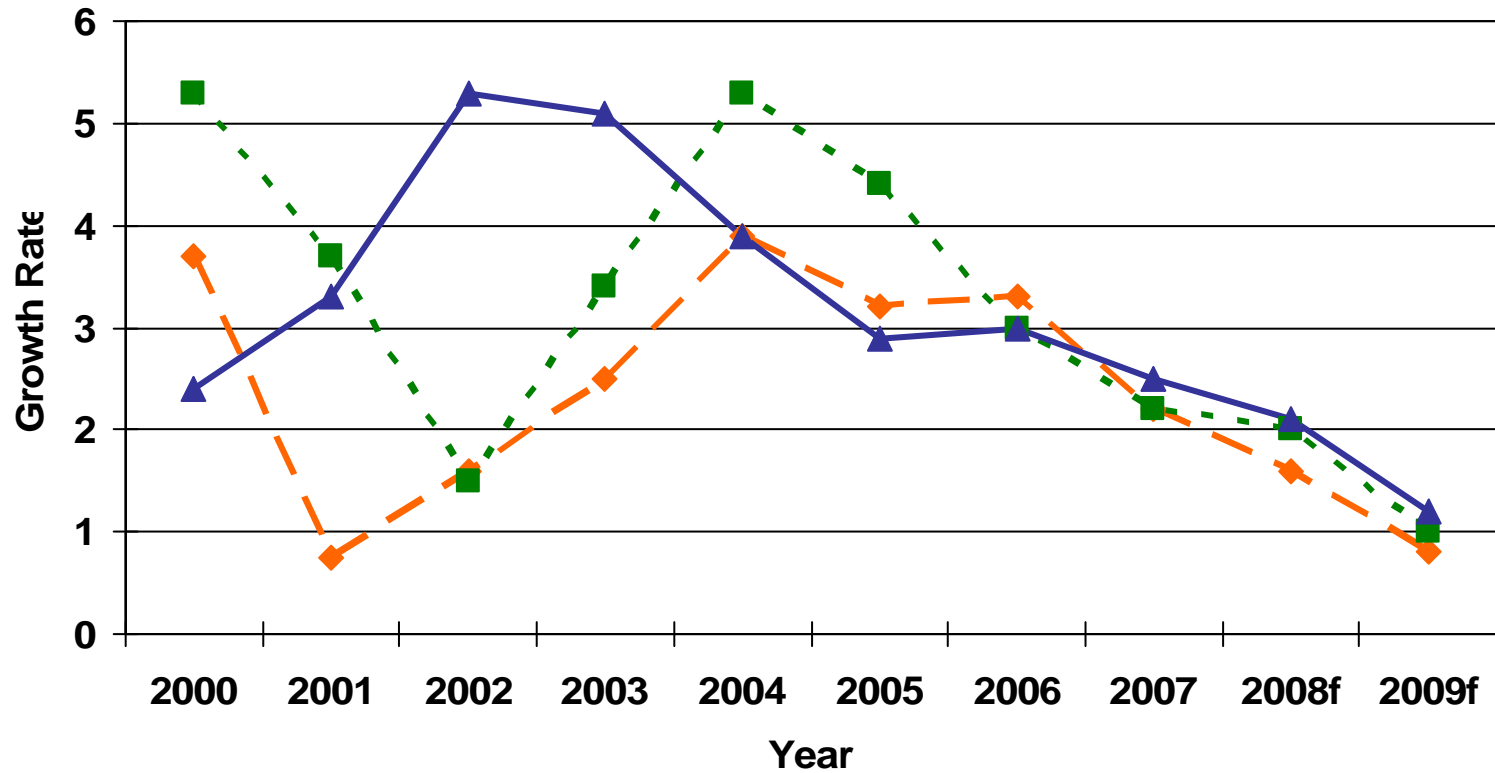
U.S. Net Exports as Percent of GDP

**For every \$10 per barrel increase/decline in the price of oil,
Domestic US demand declines/increases by roughly \$43 billion.**



Source: U.S. Department of Commerce and Old Dominion University Economic Forecast Project

Rate of Growth of GDP(US), GSP(VA) and GRP(HR)



Source: Old Dominion University Economic Forecasting Project
f: forecasted

Long Term Macro Economy Outlook

- A. Depends on capacity growth rate of productivity and employment.
- B. Coordination, Education, Immigration
- C. Pitfalls: Energy Independence, Education, Capital Markets (Over-reaction of financial regulation)

Three Financial Crises and the Economy

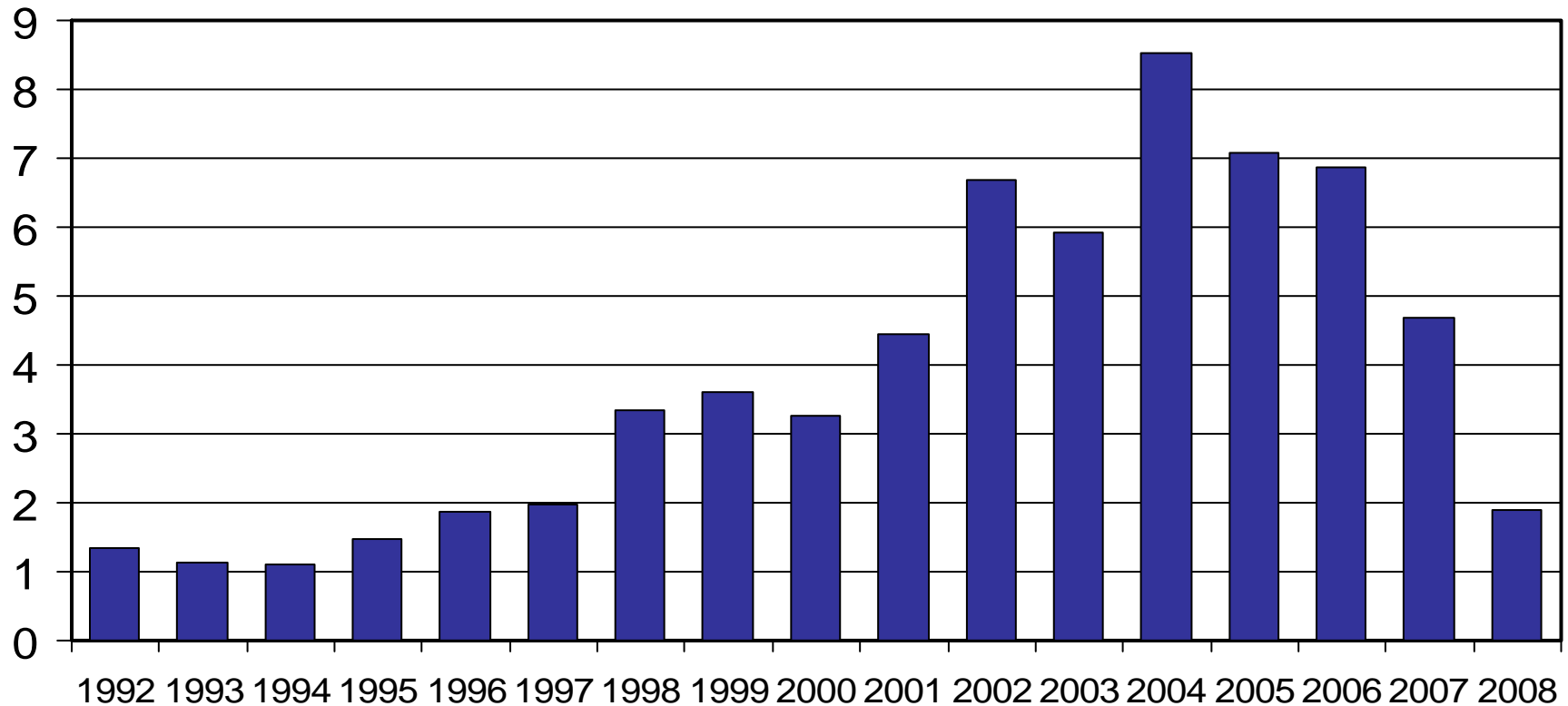
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Gross Mortgage Equity Withdrawal

(Percent of disposable income)

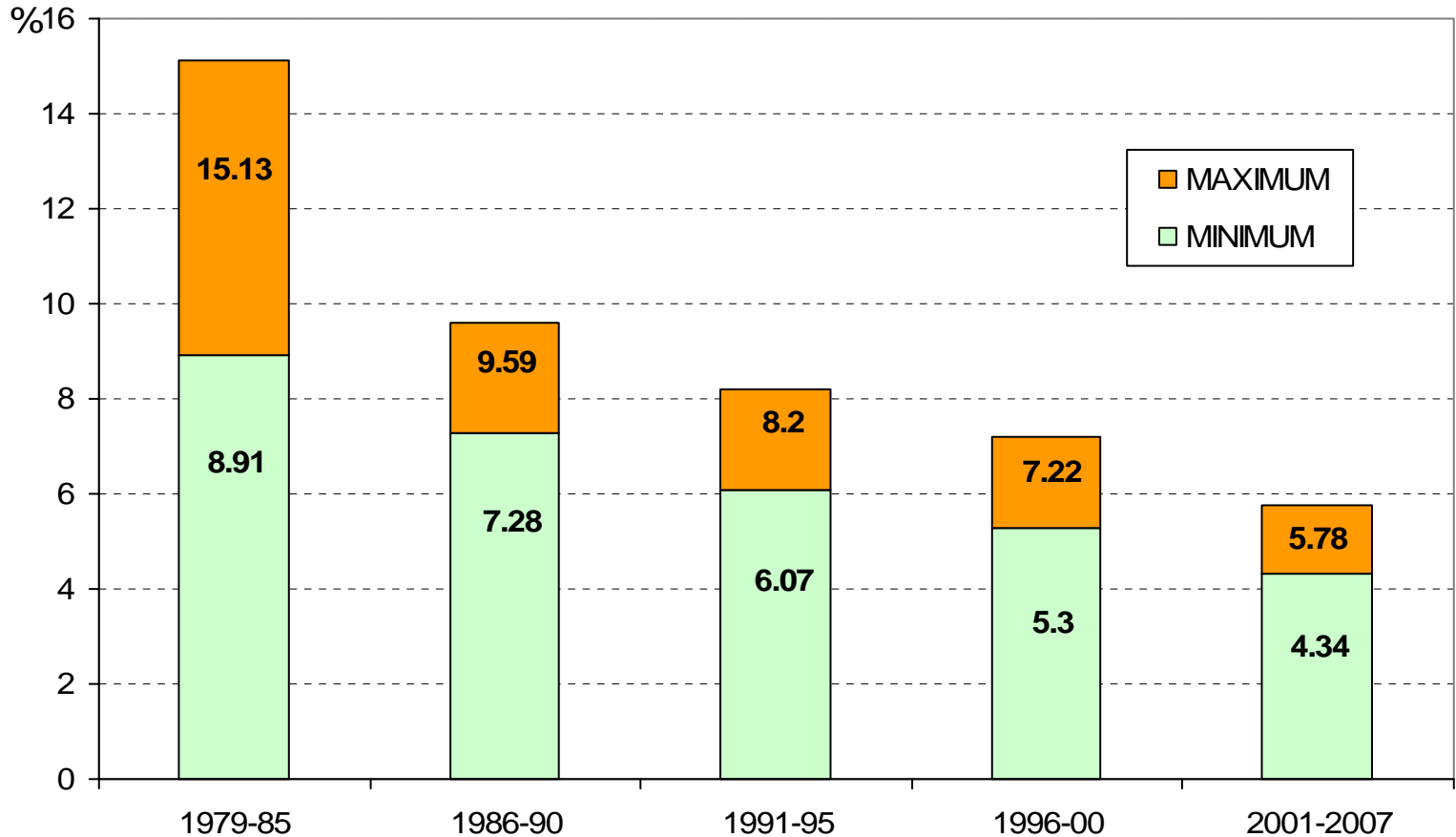


■ Net Equity Extraction

Source: Federal Reserve - Kennedy/Greenspan data updated as of June 2008 and the Old Dominion University Economic Forecasting Project. 2008 is estimated based on K/G data and Mortgage Bankers Association Jan. 2008 MBA Mortgage Finance Forecast of mortgage refinancing.

Long Rates*

30-Year Treasury Bond Maximum and Minimum Rates By Selected Year Cohorts 1979-2007

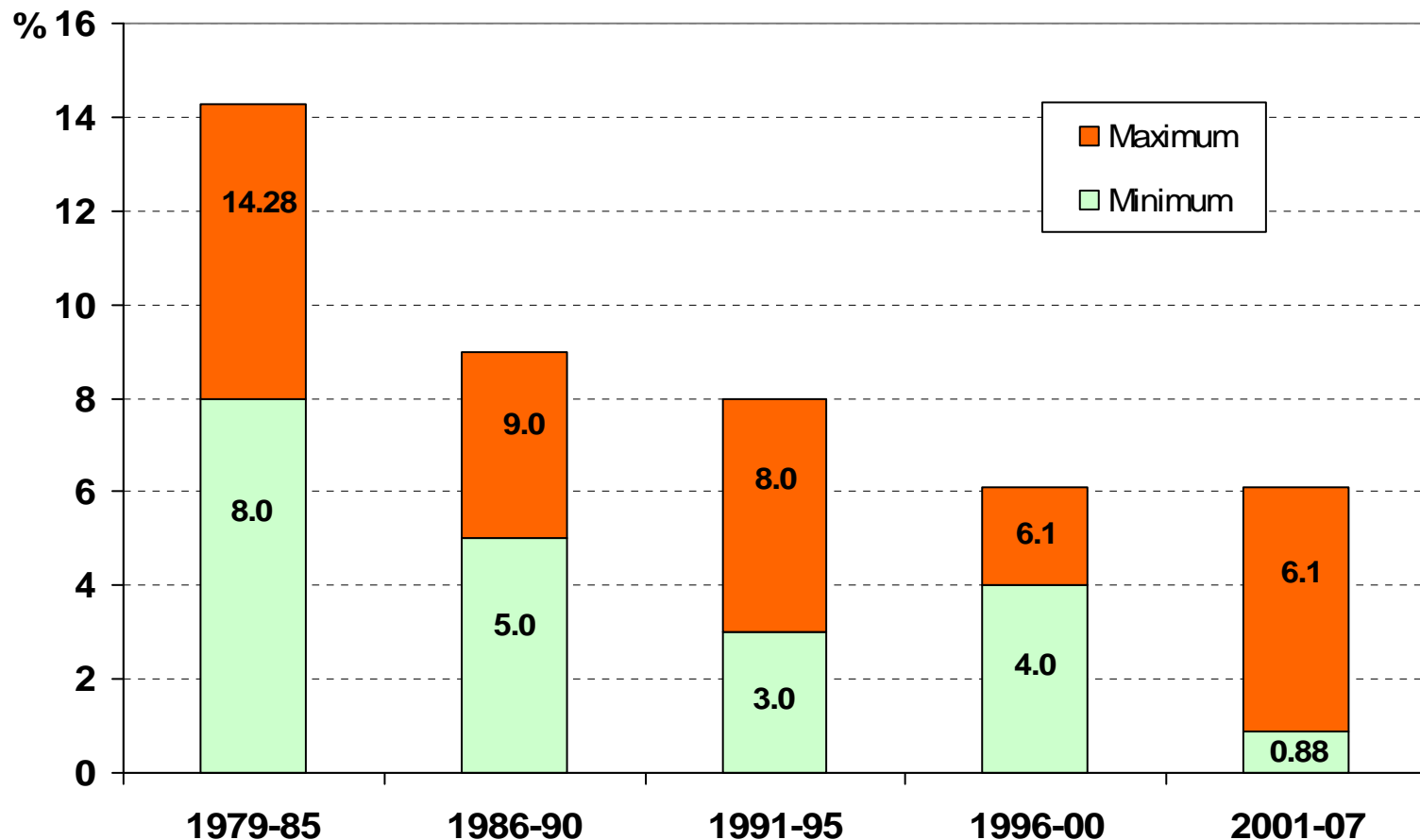


*Monthly Averages

Source: Federal Reserve Bank of St. Louis and Old Dominion University
Economic Forecasting Project

Short Term*

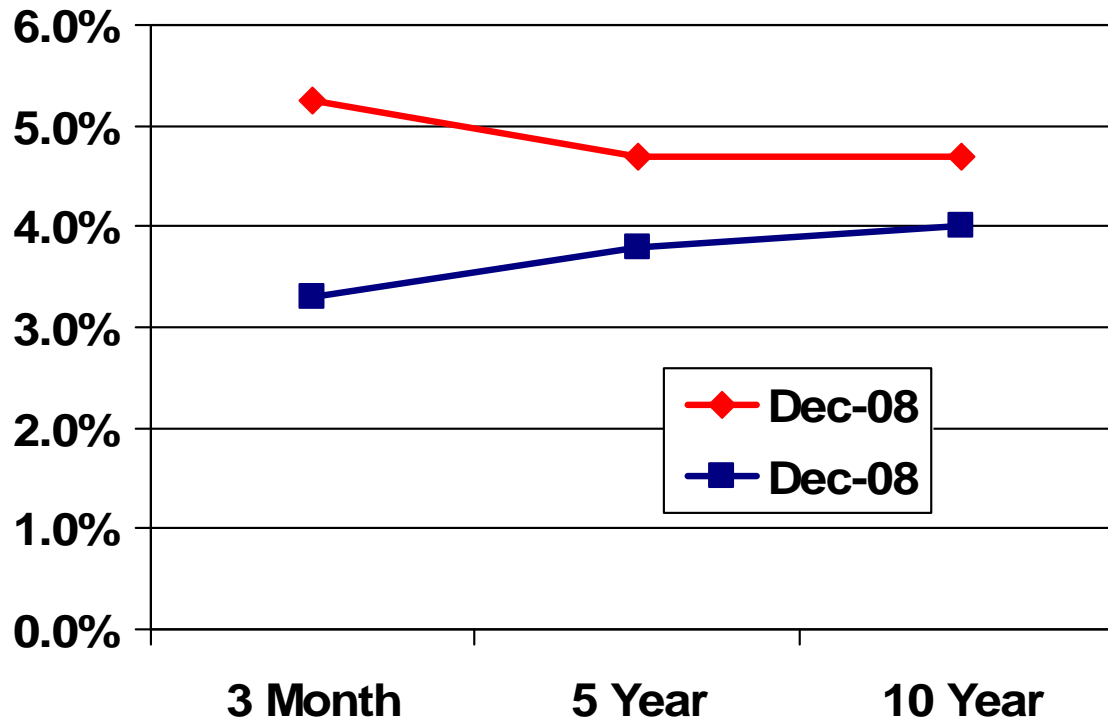
3-Month Treasury Bills Maximum and Minimum Rates By Selected Year Cohorts 1979-2007



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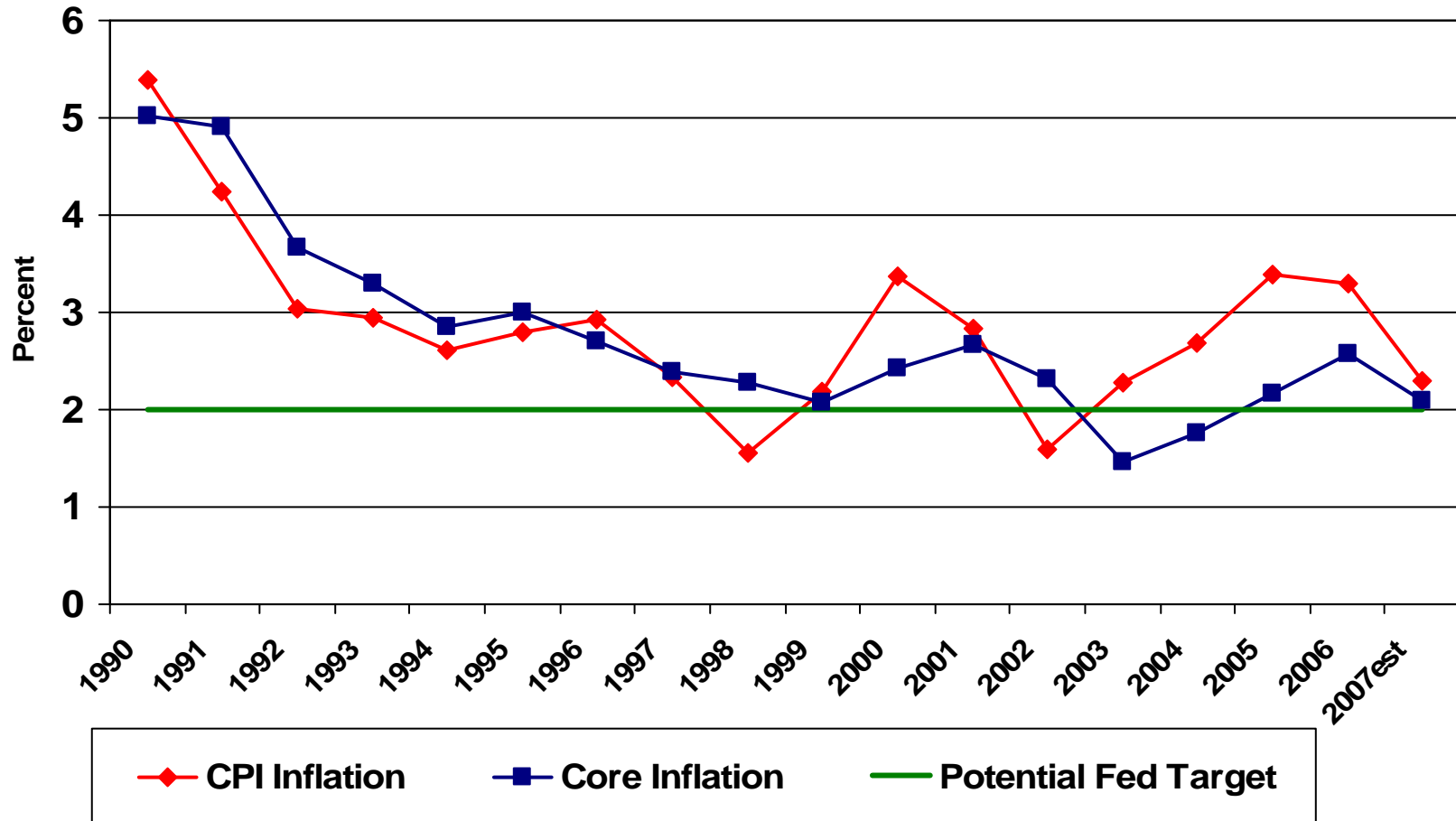
Source: Federal Reserve Bank of St. Louis and Old Dominion University Economic Forecasting Project

Treasury Yield Curve



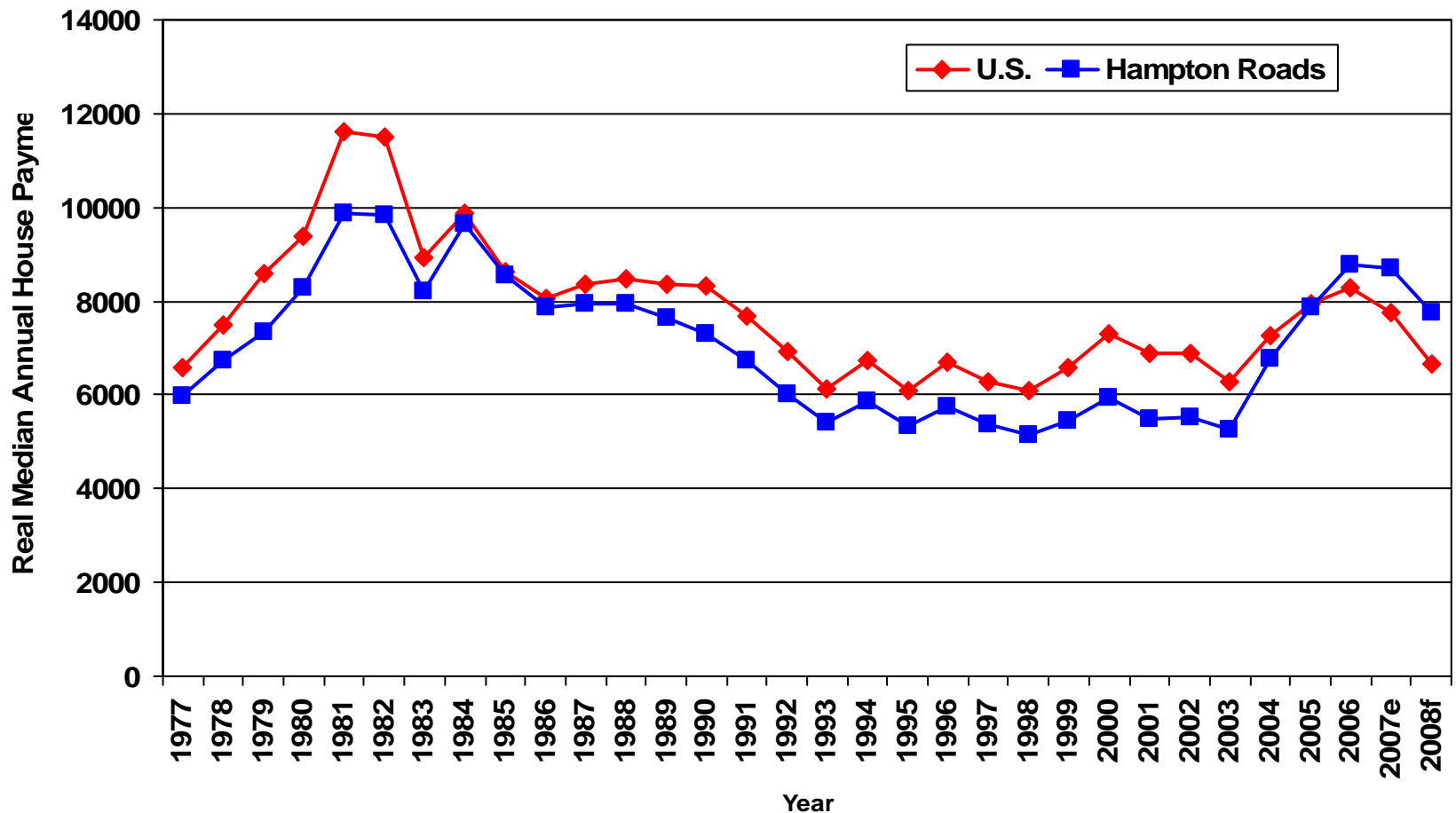
Source: Federal Reserve Bank and Old Dominion University Economic Forecasting Project

Annual CPI and Core Inflation Rate (1990 to 2007)



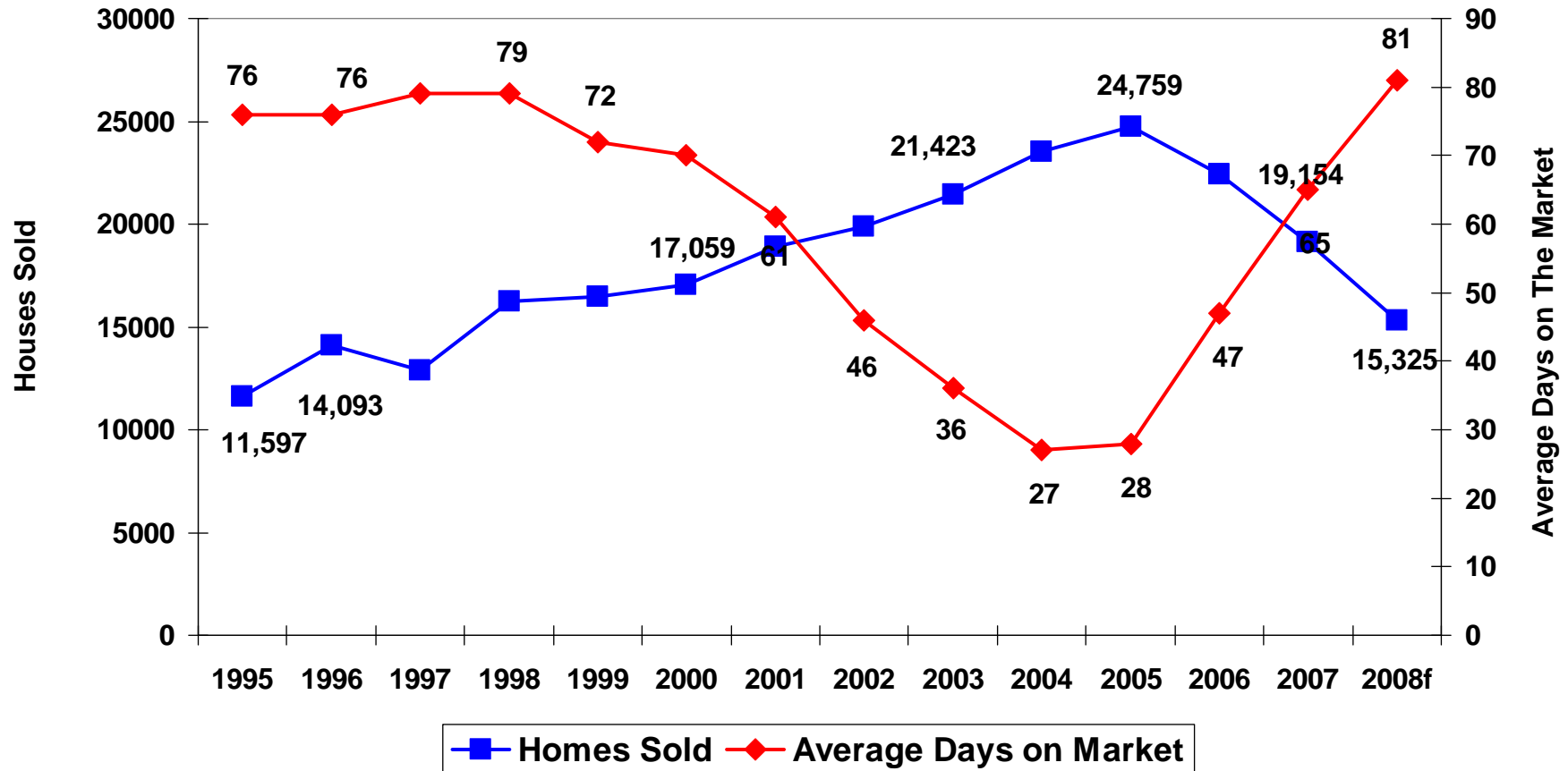
Source: U.S. Department of Labor and Old Dominion University Economic Forecasting Project

Comparison of Hampton Roads and U.S. Real Annual Median House Payment Median Price of House Sold and Median Household Income 1977-2008(1982-1984=100)*



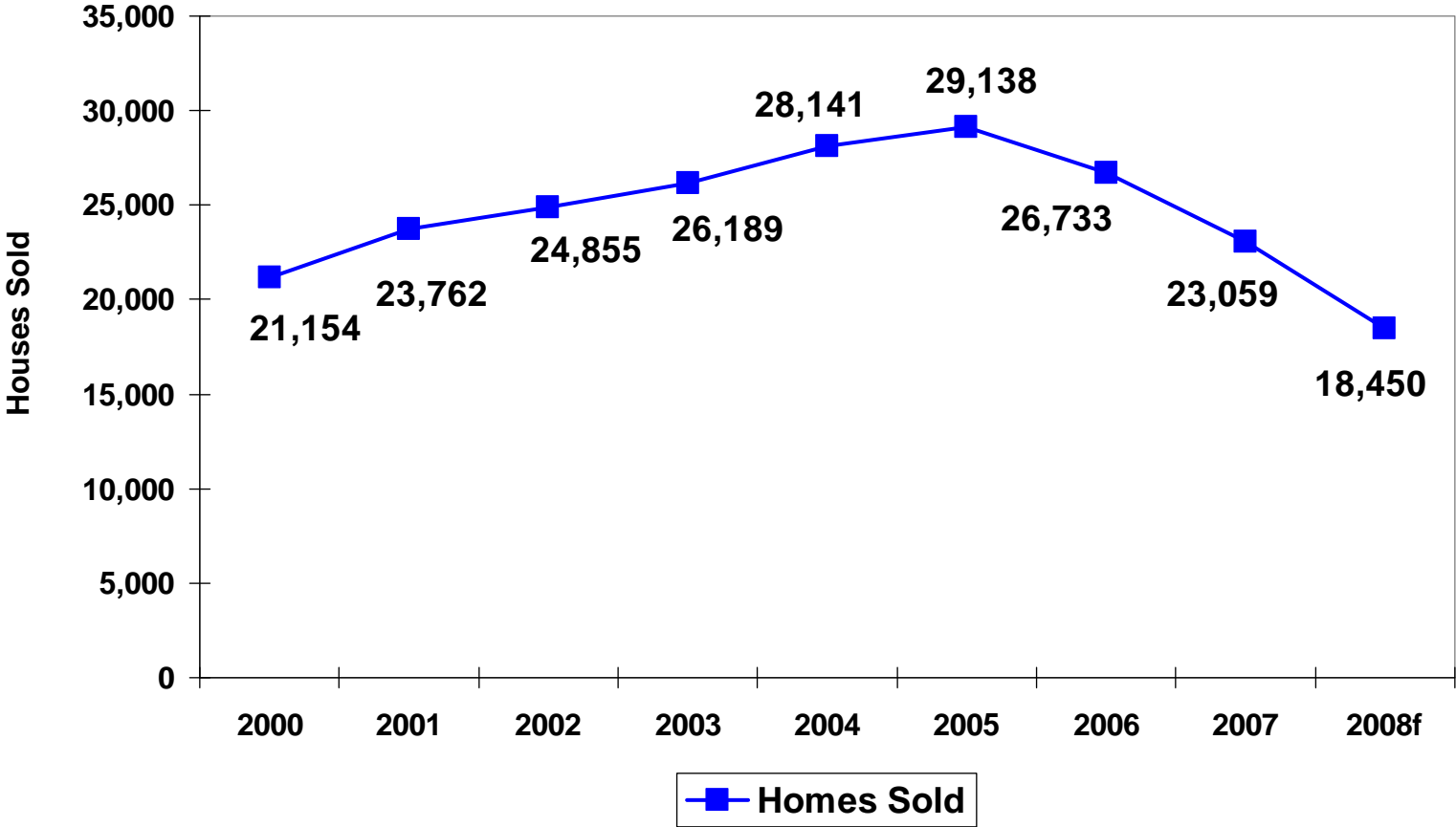
Source: U.S. Census Bureau, Nation Association of Realtors, OFHEO and the Old Dominion University Economic Forecasting Project
 *2007 data are estimated; 2008 data are forecasted

Hampton Roads All *Existing* (Detached, Attached) Home Sales and Average Number of Days on The Market (1995-2008)



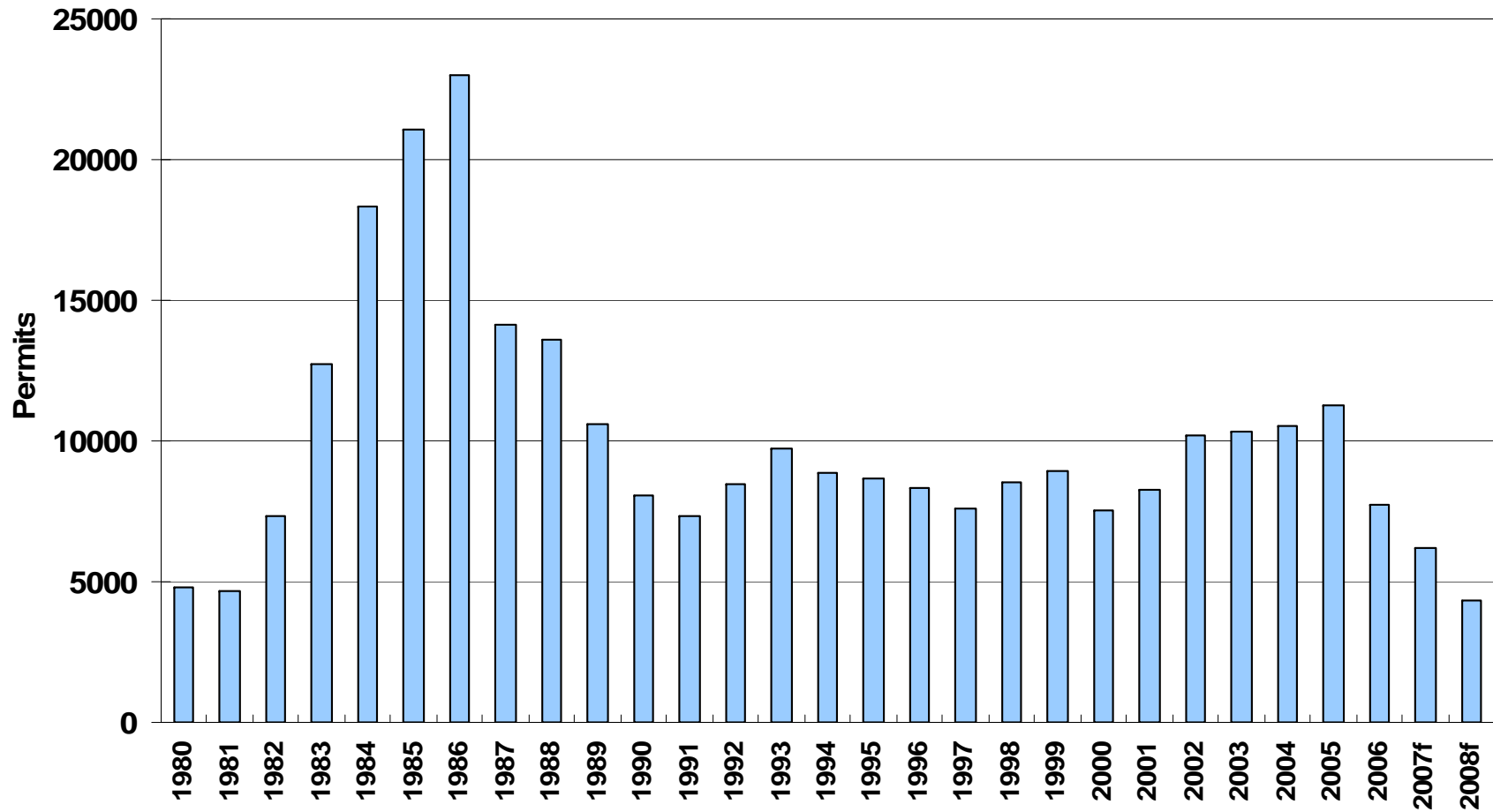
Source: Real Estate Information Network Inc. and the Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed. Days on Market is calculated from the Date Listed to the Date under contract date for existing homes sold.

Graph 2: All Residential Homes Sold in Hampton Roads: (2000-2008)



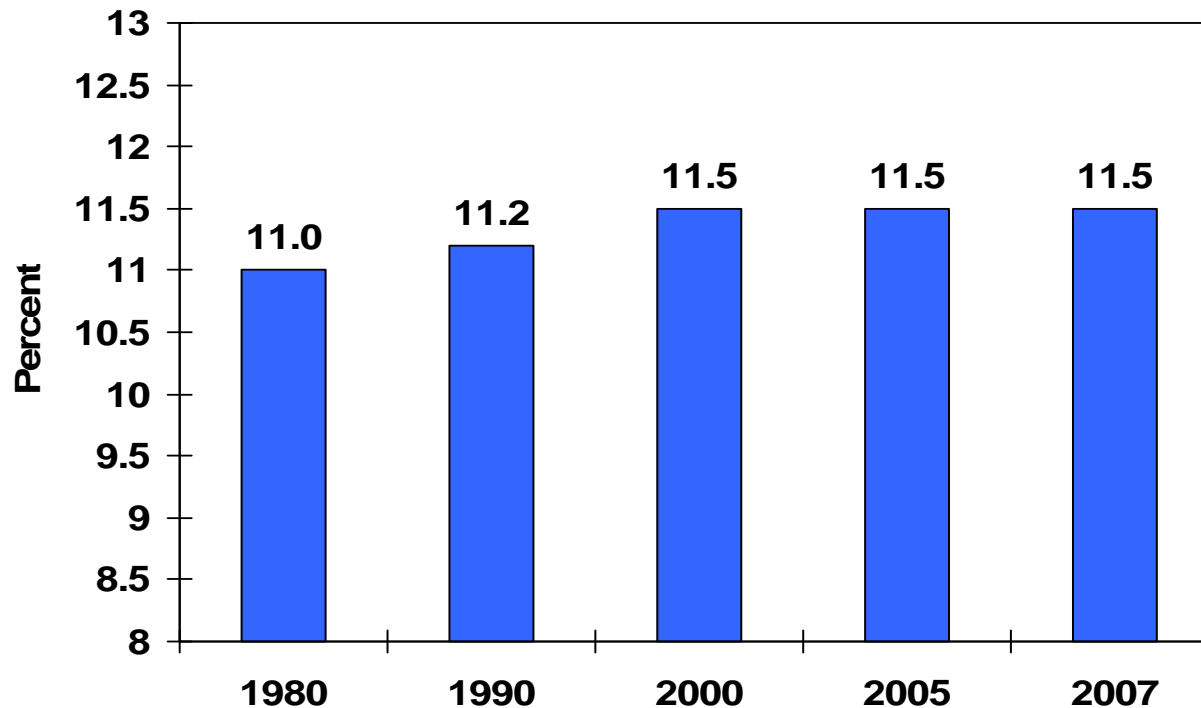
Source: Real Estate Information Network Inc. and the Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed.

Total New Housing Permits in Hampton Roads



Source: U.S. Census Bureau and Old Dominion University Economic Forecasting Project

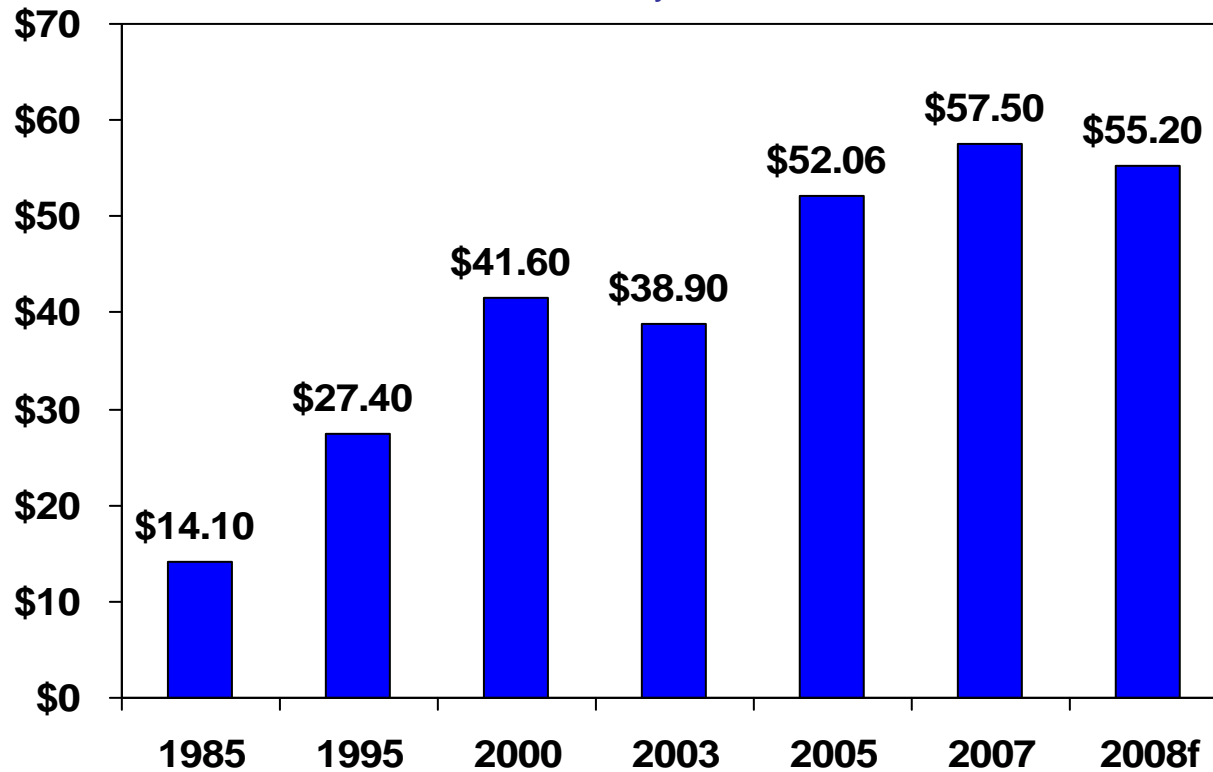
Estimated Household Debt Service as a Percent of Disposable Personal Income After-Tax Adjustment for the Incremental Change in Household Mortgage to Total Liabilities Ratio (1980=100)



Source: Old Dominion University Economic Forecasting Project

U.S. Household Net Worth (Trillions of Dollars)

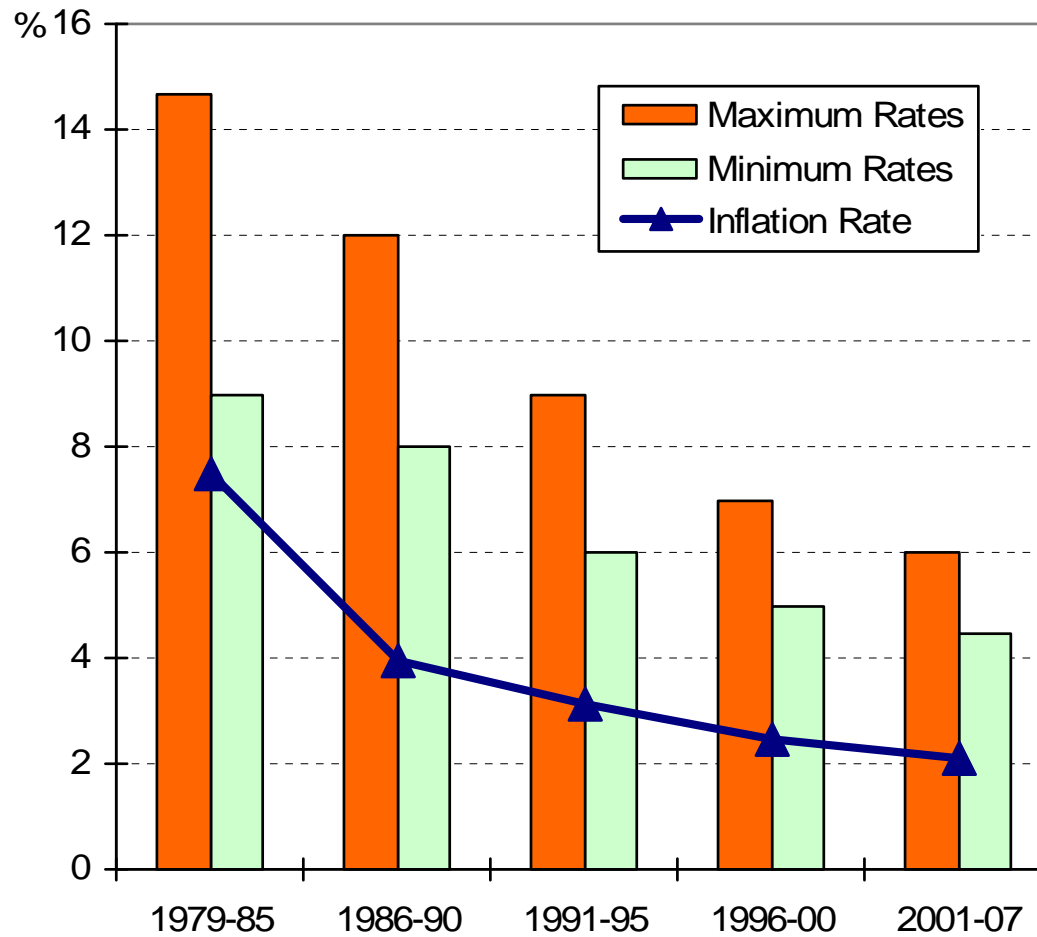
Household net worth increased by an estimated 6.7% from 2006 to 2007



Source: Federal Reserve Bank and the Old Dominion University
Economic Forecasting Project

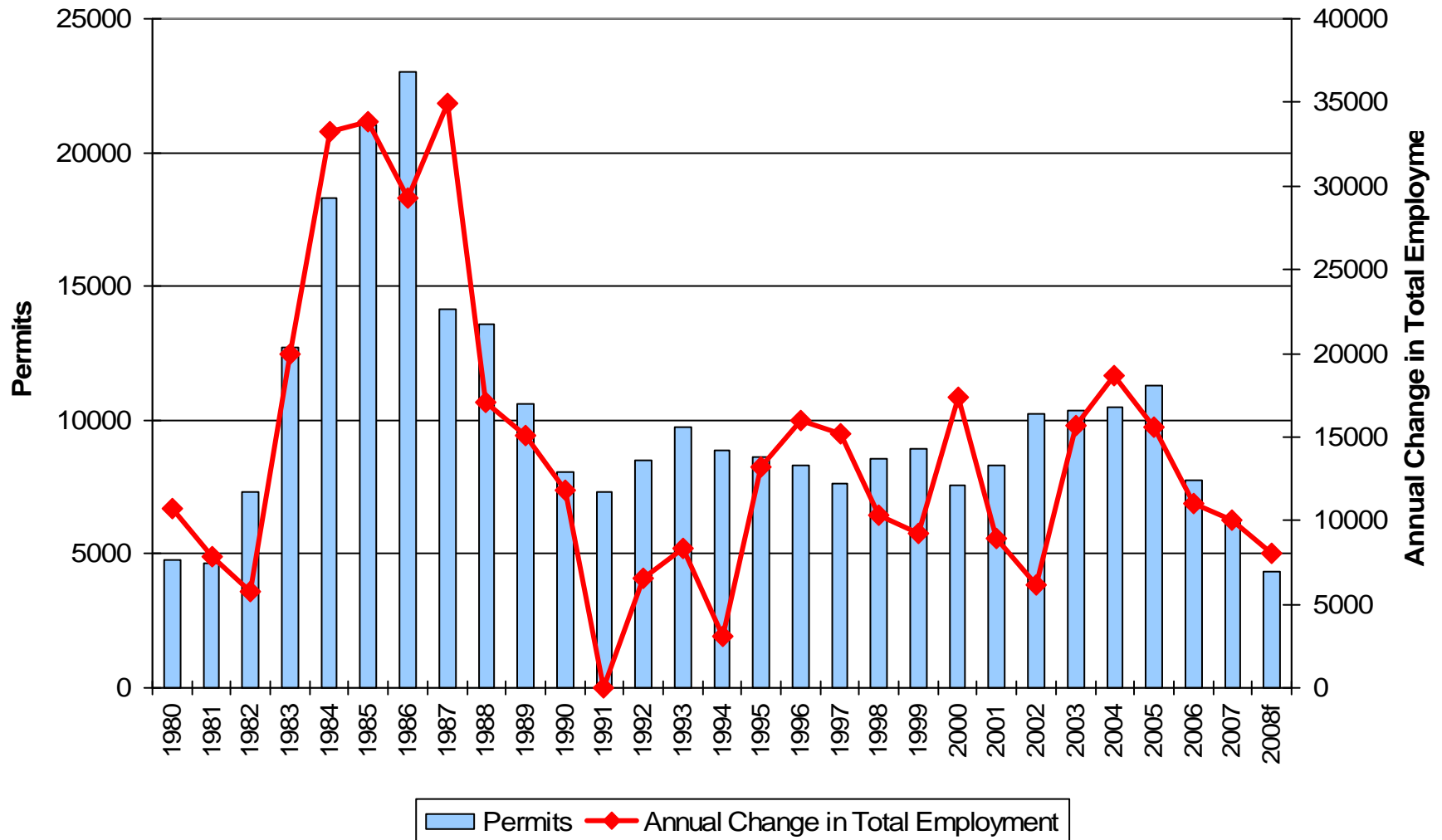
e: estimated

30-Year Treasury Bond Maximum/Minimum Rates and the Five-Year Average Rate of Inflation



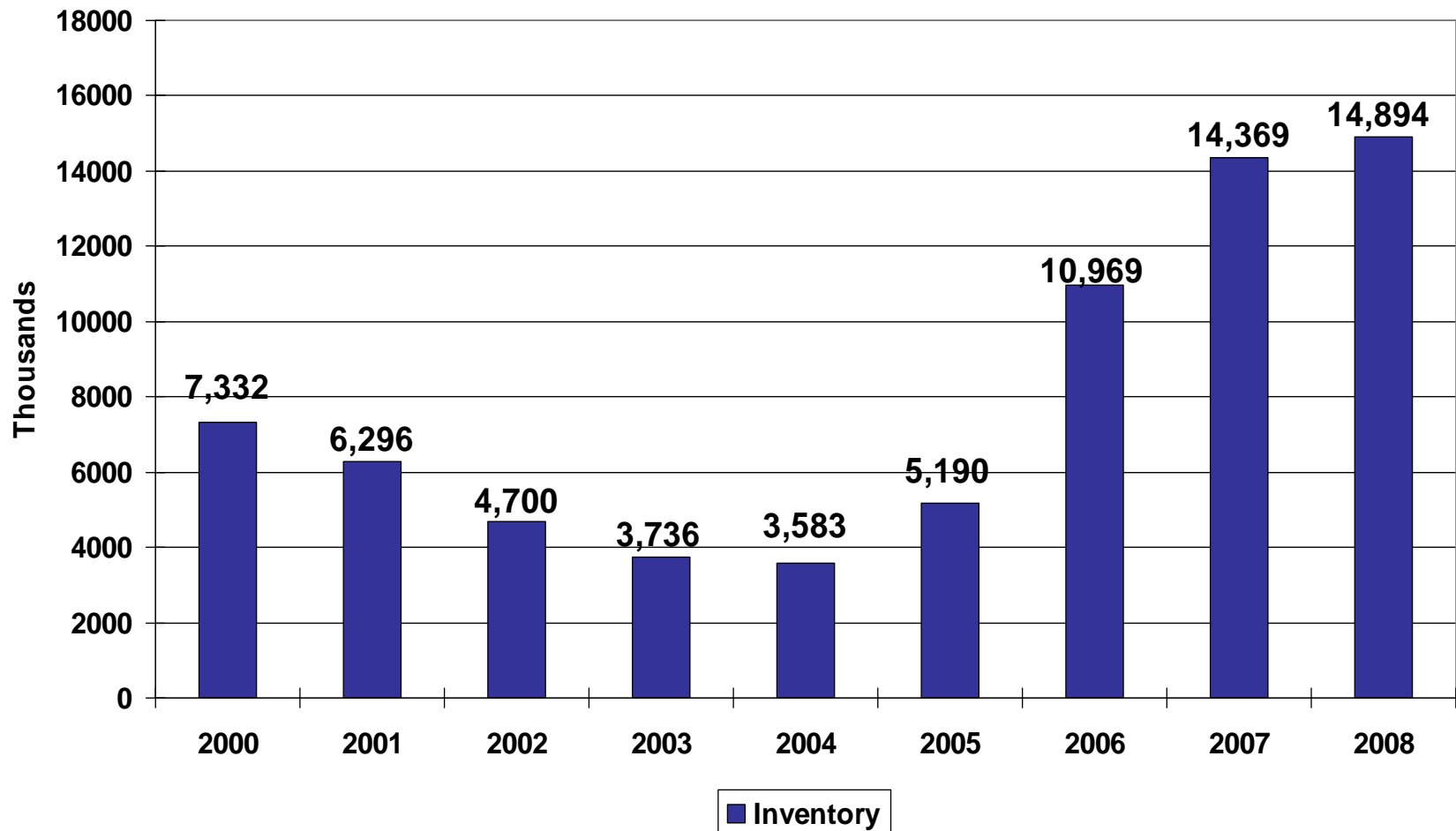
Source: Federal Reserve Bank, U.S. Department of Labor and Old Dominion University Economic Forecasting Project

Annual Change in Total Employment and Total New Housing Permits in Hampton Roads, 1980-2008



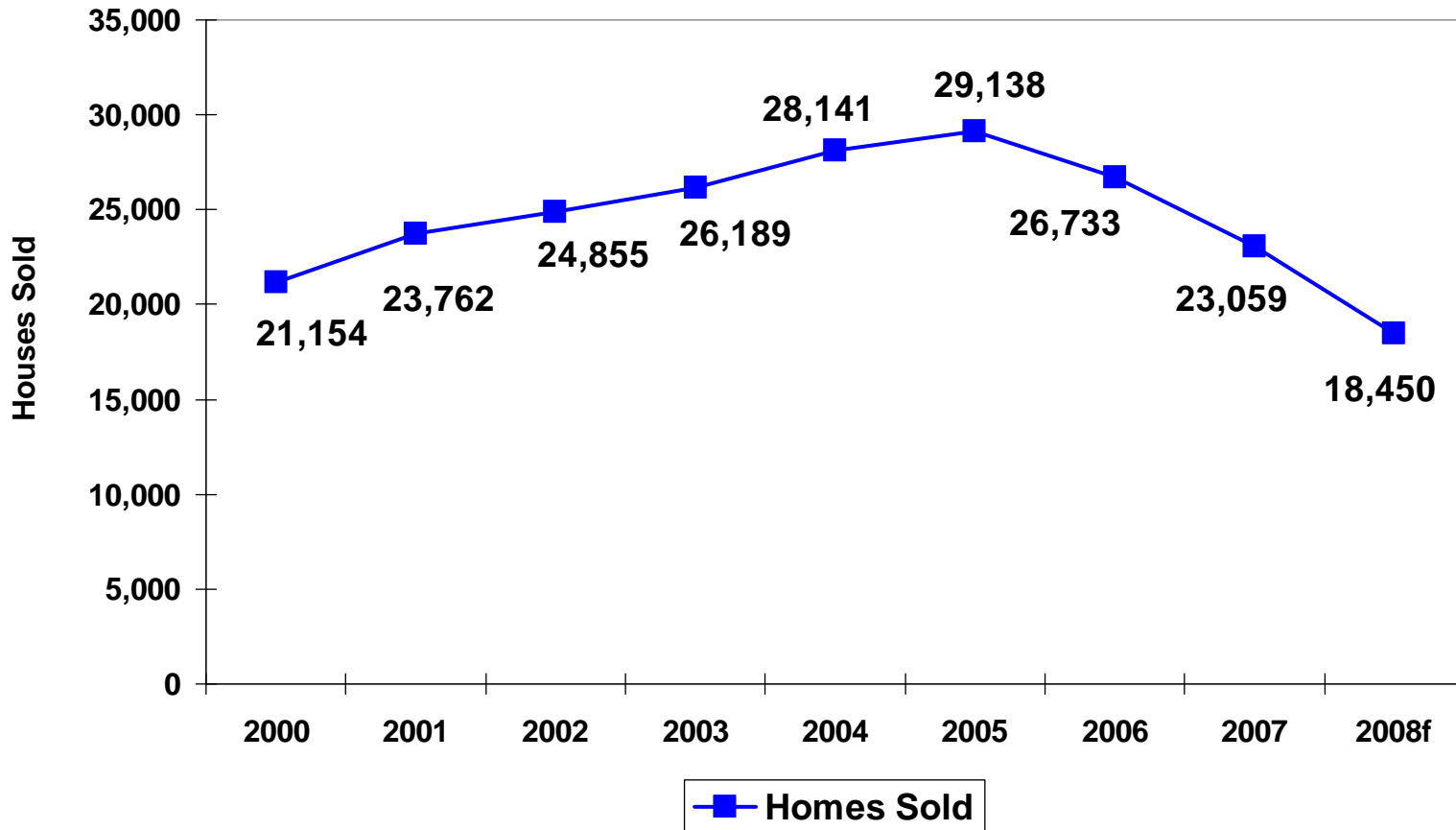
Source: U.S. Census Bureau and Old Dominion University Economic Forecasting Project

Graph 1: Hampton Roads Inventory of All Unsold Residential Homes as measured by active Listings as of August 31 each year



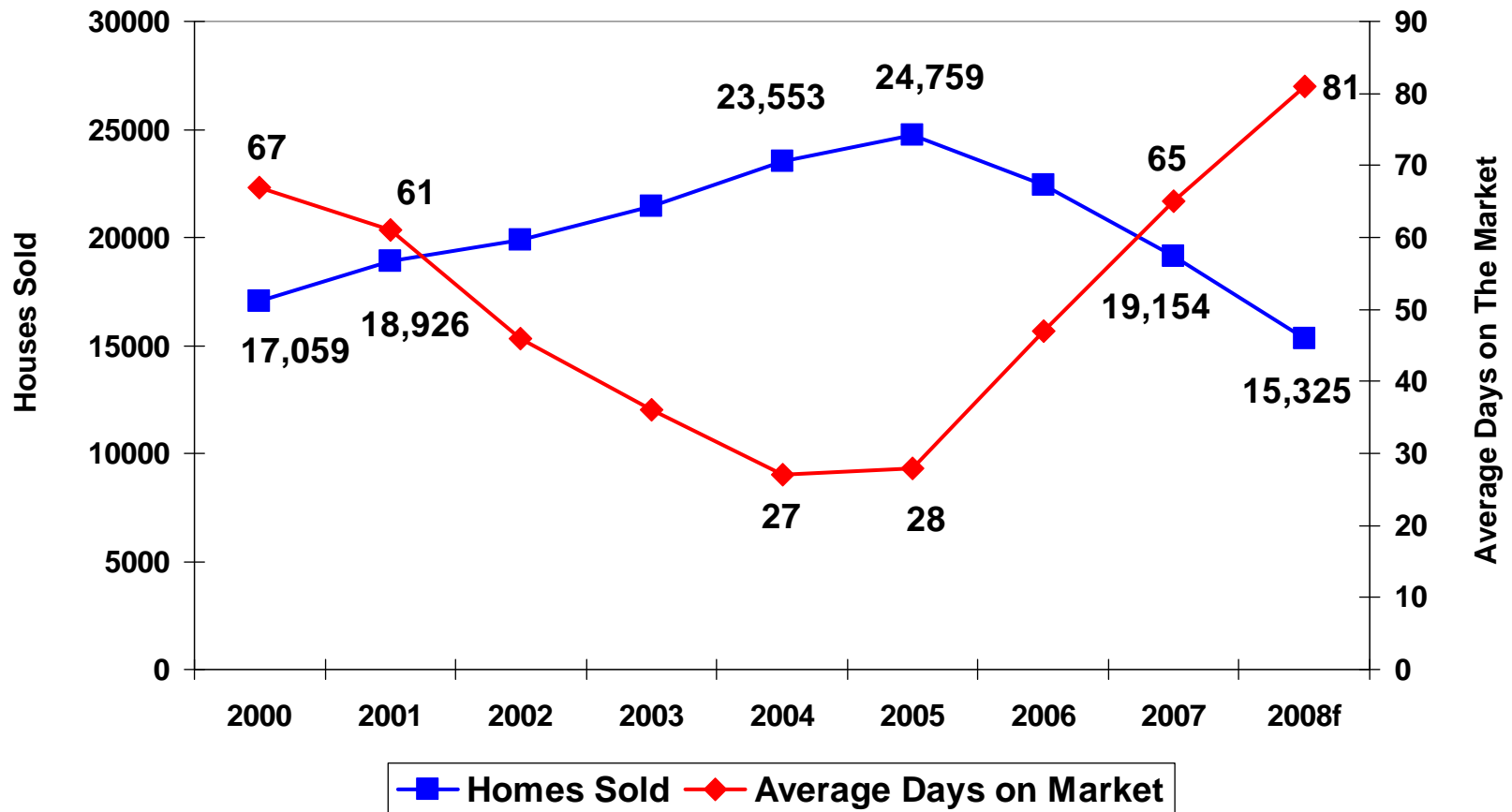
Source: Real Estate Information Network Inc. and the Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed.

Graph 2: All Residential Homes Sold in Hampton Roads: (2000-2008)



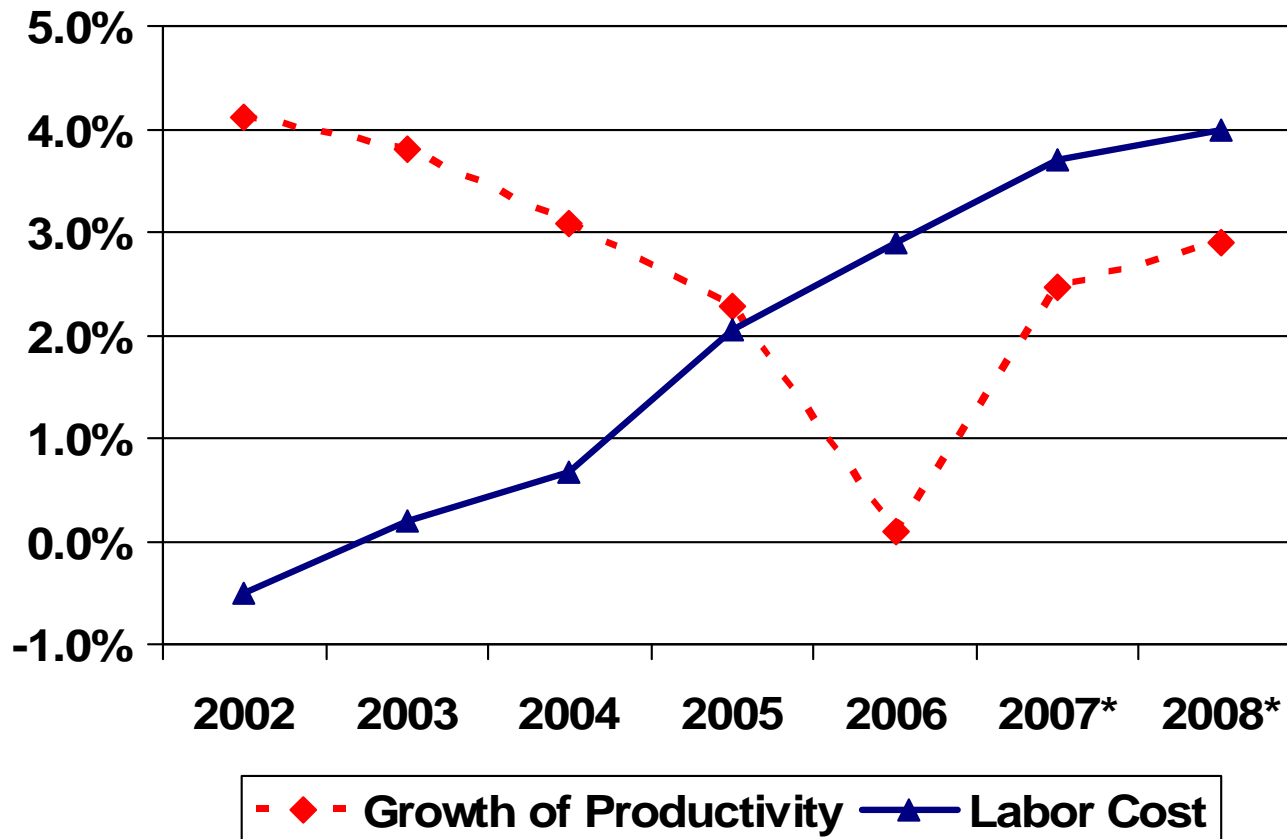
Source: Real Estate Information Network Inc. and the Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed.

Graph 3: Hampton Roads *Existing* Home Sales and Average Number of Days on The Market (2000-2008)



Source: Real Estate Information Network Inc. and the Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed. Days on Market is calculated from the Date Listed to the Date under contract date for existing homes sold.

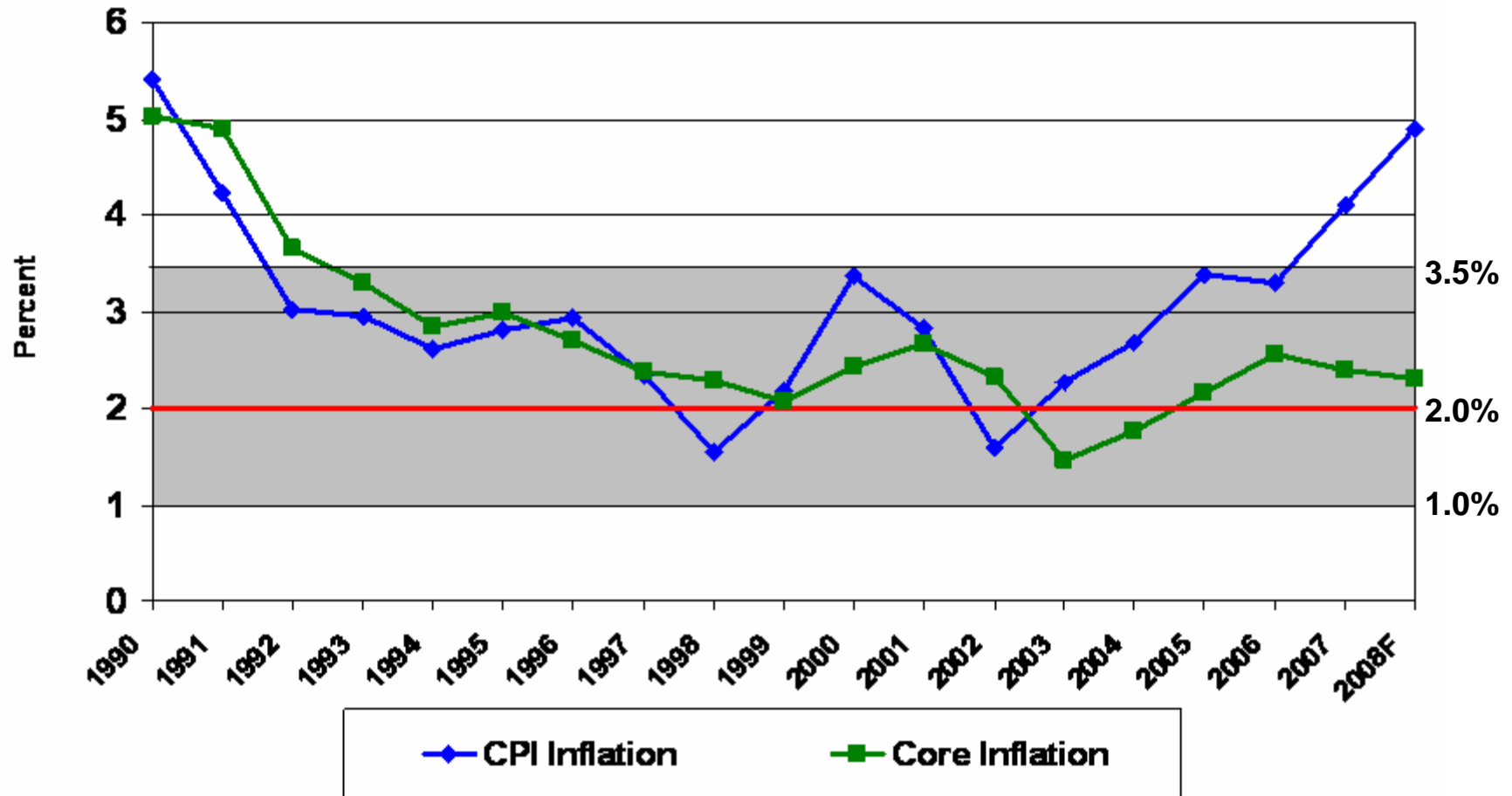
Percentage Growth in U.S. Labor Productivity and Nominal Unit Labor Cost (2002-2008)



*Estimated

Source: U.S. Department of Labor and Old Dominion University Economic Forecasting Project

Annual CPI and Core Inflation Rate and Long-Run Inflation Objective Upper and Lower Limits (1990 to 2007)



Source: U.S. Department of Labor and Old Dominion University Economic Forecasting Project