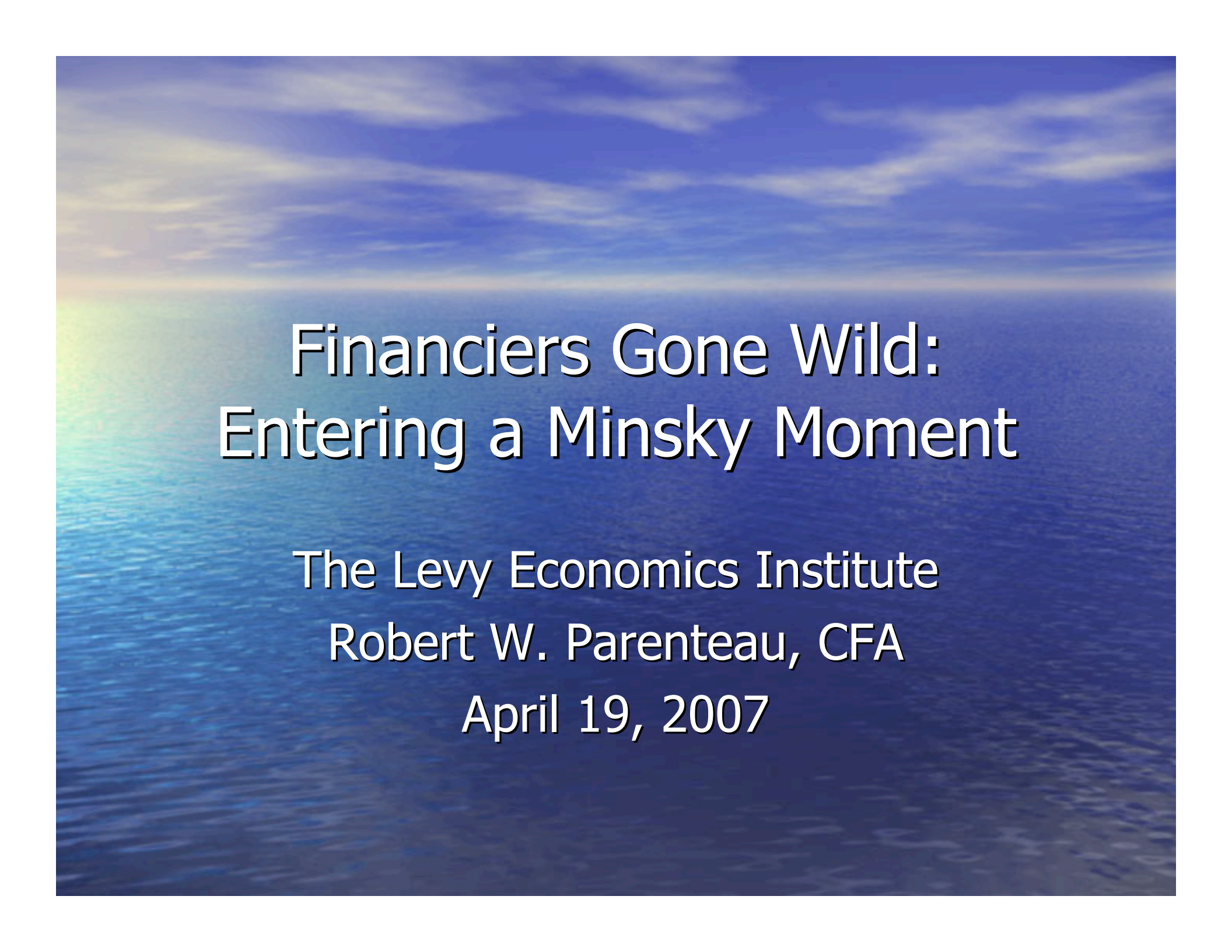




Financiers Gone Wild: Entering a Minsky Moment

The Levy Economics Institute

Robert W. Parenteau, CFA

April 19, 2007

Minsky & Lakshman's Suggestion

“The essence of the financial instability hypothesis is that financial traumas, even on to debt-deflation interactions, occur as a normal functioning in a capitalist economy. This does not mean that a capitalist system is always tottering on the brink of disaster.”

H. P. Minsky, “The Financial Instability Hypothesis: A Restatement”

Minsky on When to Cry Wolf

“Tranquility and success are not self-sustaining states; they induce increases in capital asset prices relative to current output prices and a rise in acceptable debts for any prospective income flow, investment, and profits. These concurrent increases lead to a transformation over time of an initially robust financial structure into a fragile structure.”

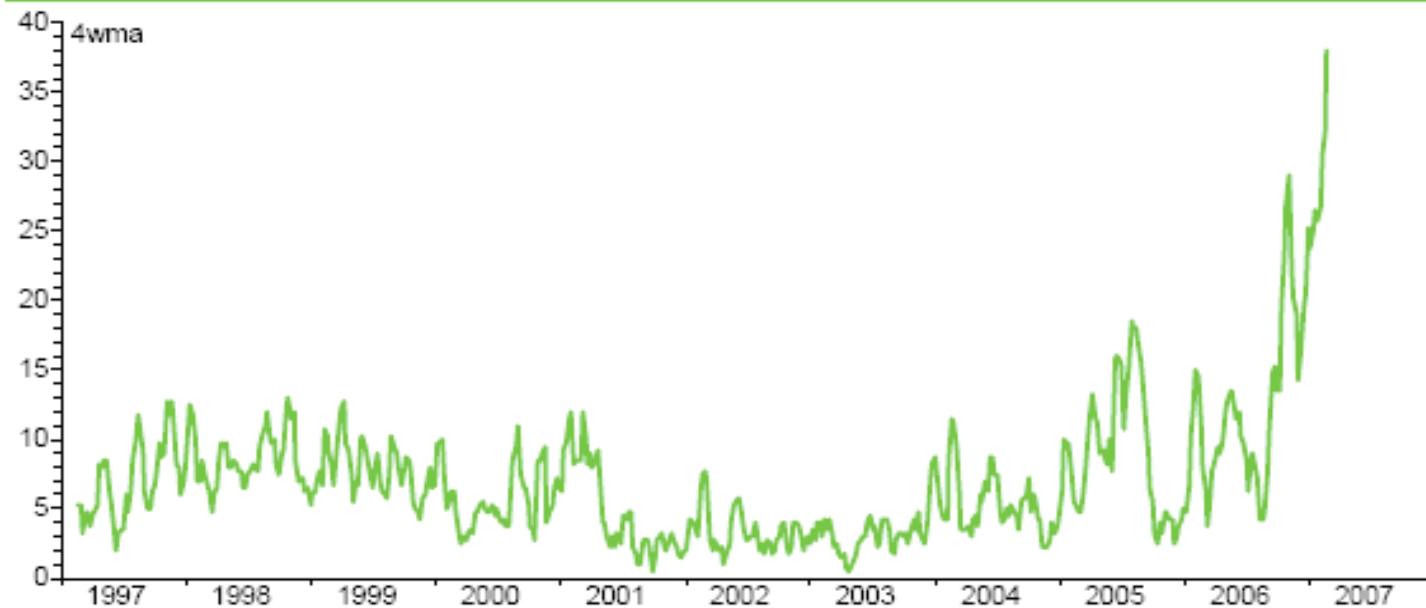
H. P. Minsky, “The Financial Instability Hypothesis: A Restatement”

Corollary to Lakshman's Suggestion: No More Fairy Tales...

Global Economics for Investors

22 February 2007

Onwards and upwards: our "goldilocks" word count



Source: Factiva and Dresdner Kleinwort Macro research

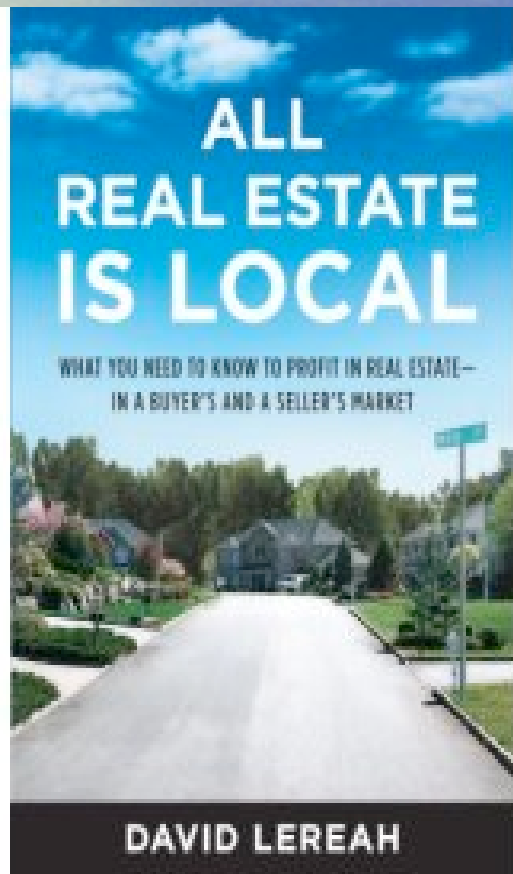
Indeed, our regular "Goldilocks" word count has kept soaring to new record highs.

...& No More Investment Porn...



- **Are You Missing the Real Estate Boom?: The Boom Will Not Bust and Why Property Values Will Continue to Climb Through the End of the Decade - And How to Profit From Them**
- Spring, 2005 Hardcover Edition

...Unless it is Subject to Quick Revision



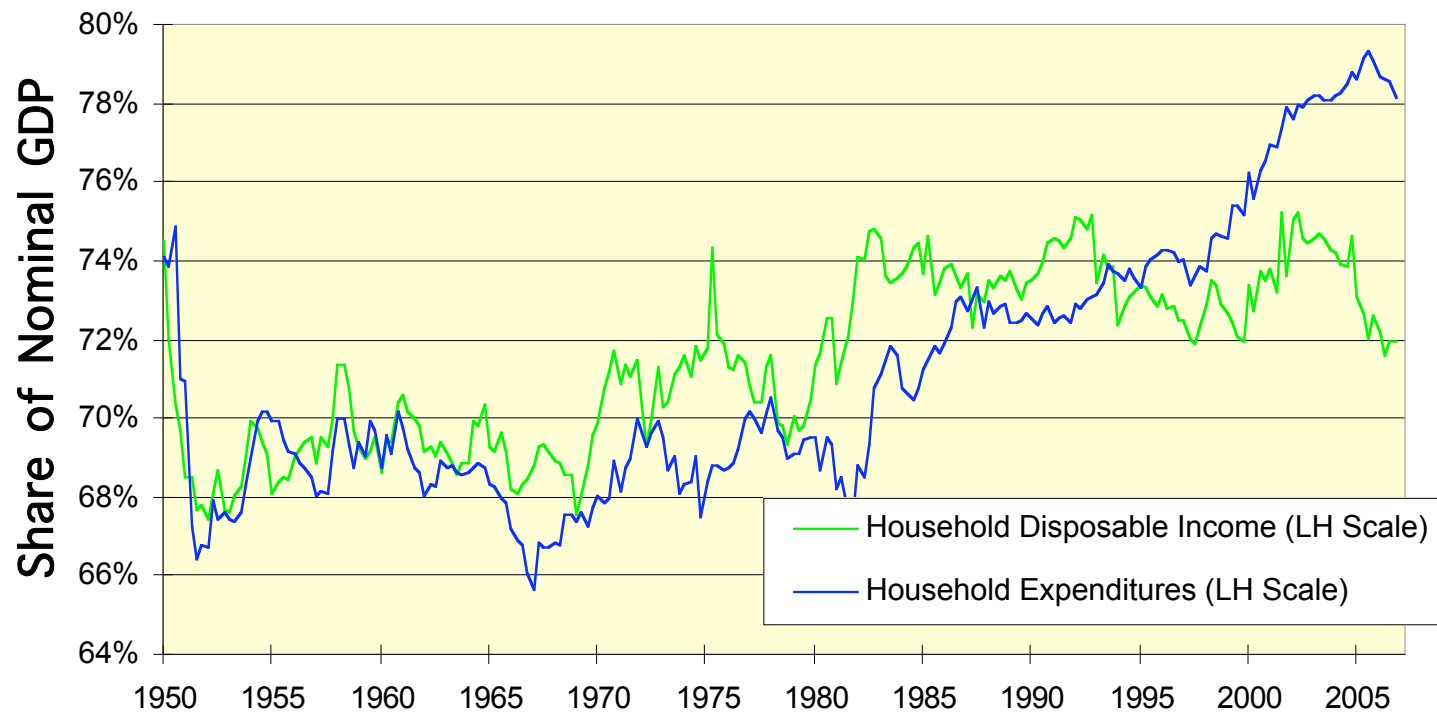
- **What You Need to Know to Profit in Real Estate Boom—in a Buyer's and Seller's Market**
- Forthcoming, Spring, 2008

Four Key Macrofinancial Questions

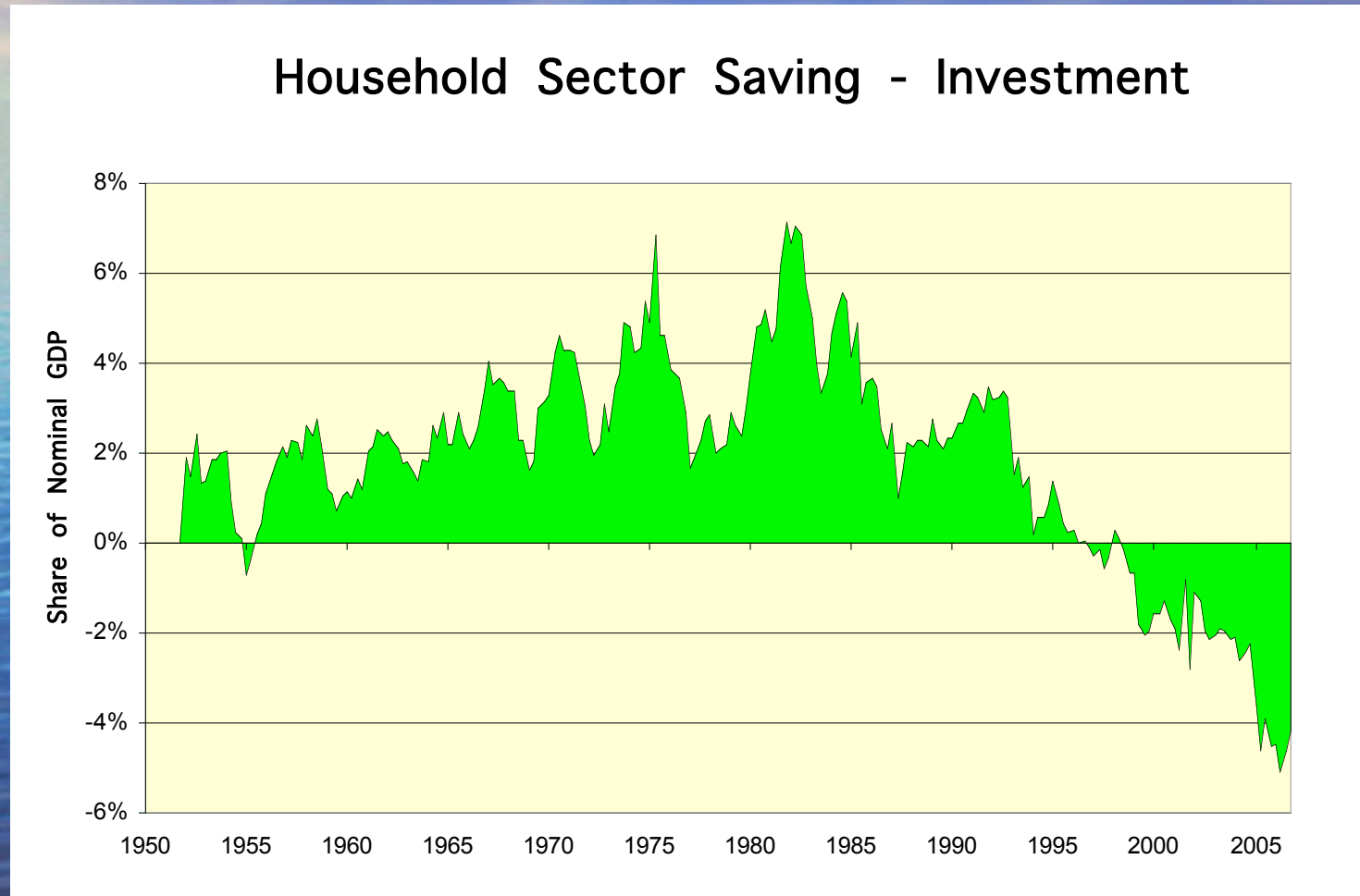
- US Household Deficit Spending: are we on a sustainable trajectory?
- US Landing Path: soft or hard landing?
- New Financial Architecture: efficient risk distributor, or efficient incentive distorter?
- Intelligent Responses: coherent or incomplete macro and policy frameworks?

US Household Sector Financial Balance

Household Spending & Income Over a Decade of Deficit Spending



US Household Sector Financial Balance



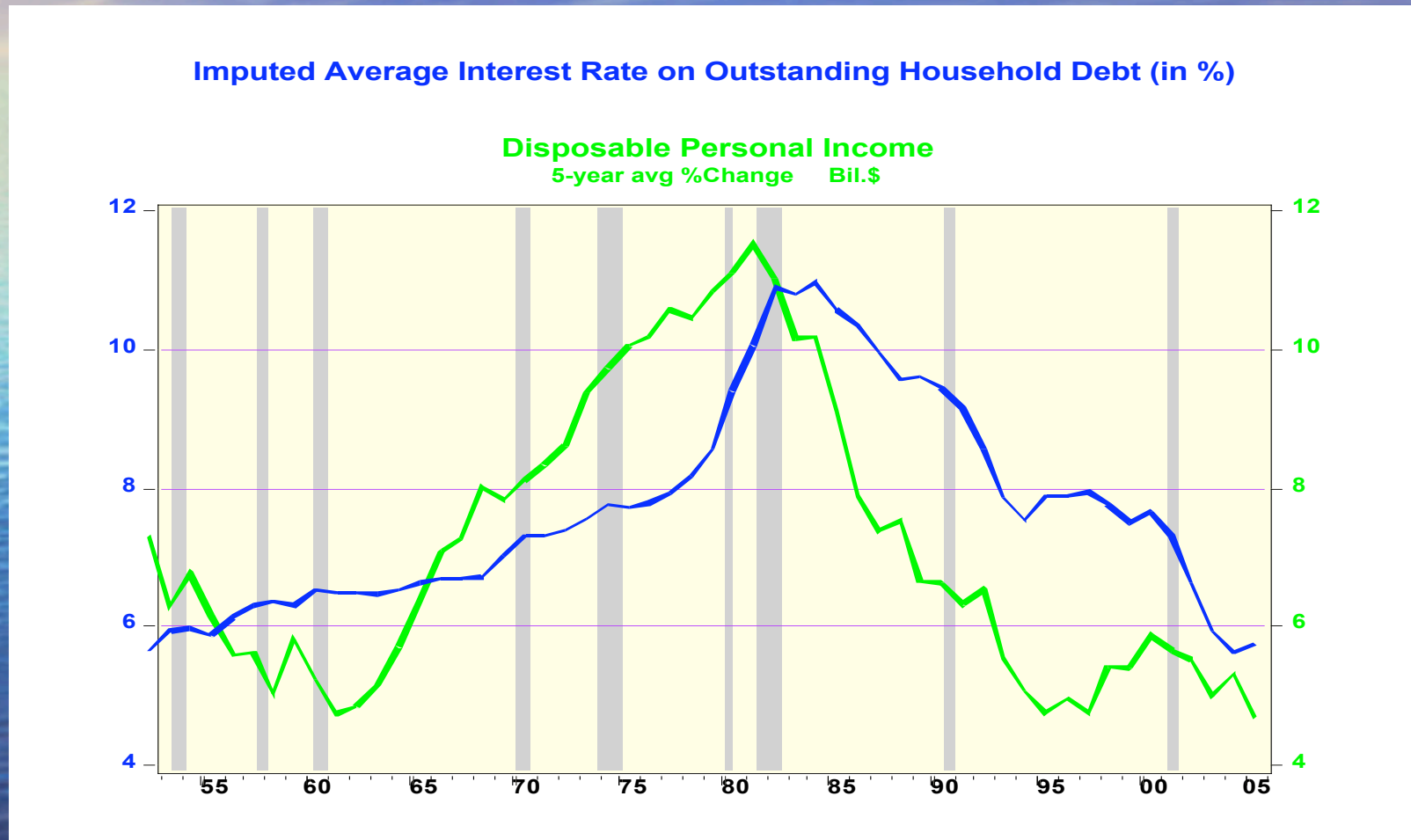
A Persistent Deficit Spending Sector Must Either:

- Sell existing asset holdings to another sector
 - Run down liquid asset holdings
 - Liquidate less liquid asset holdings
- Issue new liabilities to another sector
 - Equity
 - Debt
 - Money

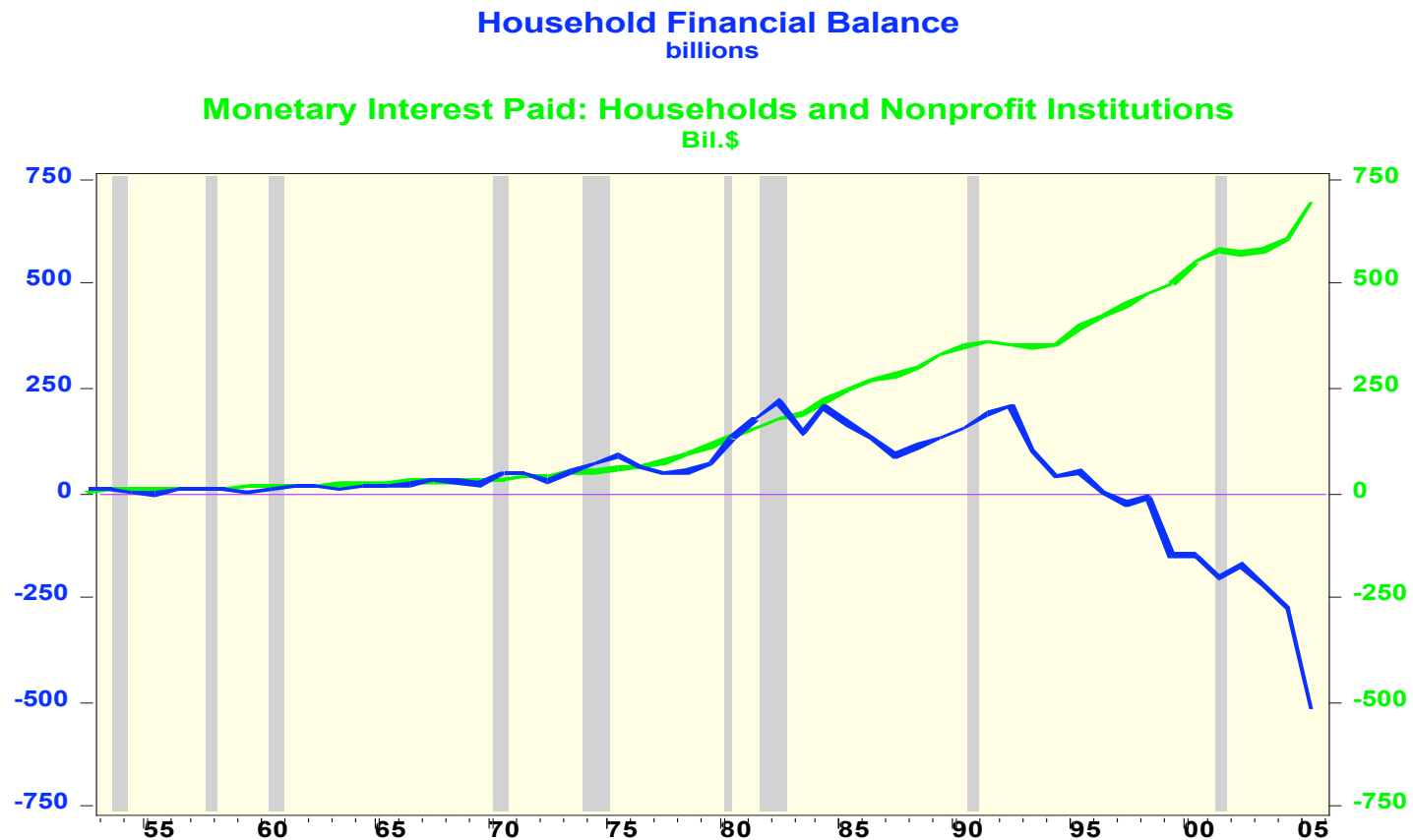
Applying the Debt Trap Equation

- Debt trap equation in discrete form:
- $D1/Y1 = (1 + i - g) D/Y - PFB/Y$
- Future Debt/Income Ratio =
- $(1 + \text{interest rate} - \text{income growth rate}) \times$
- Current Debt/Income Ratio –
- Primary Financial Balance/Income Ratio

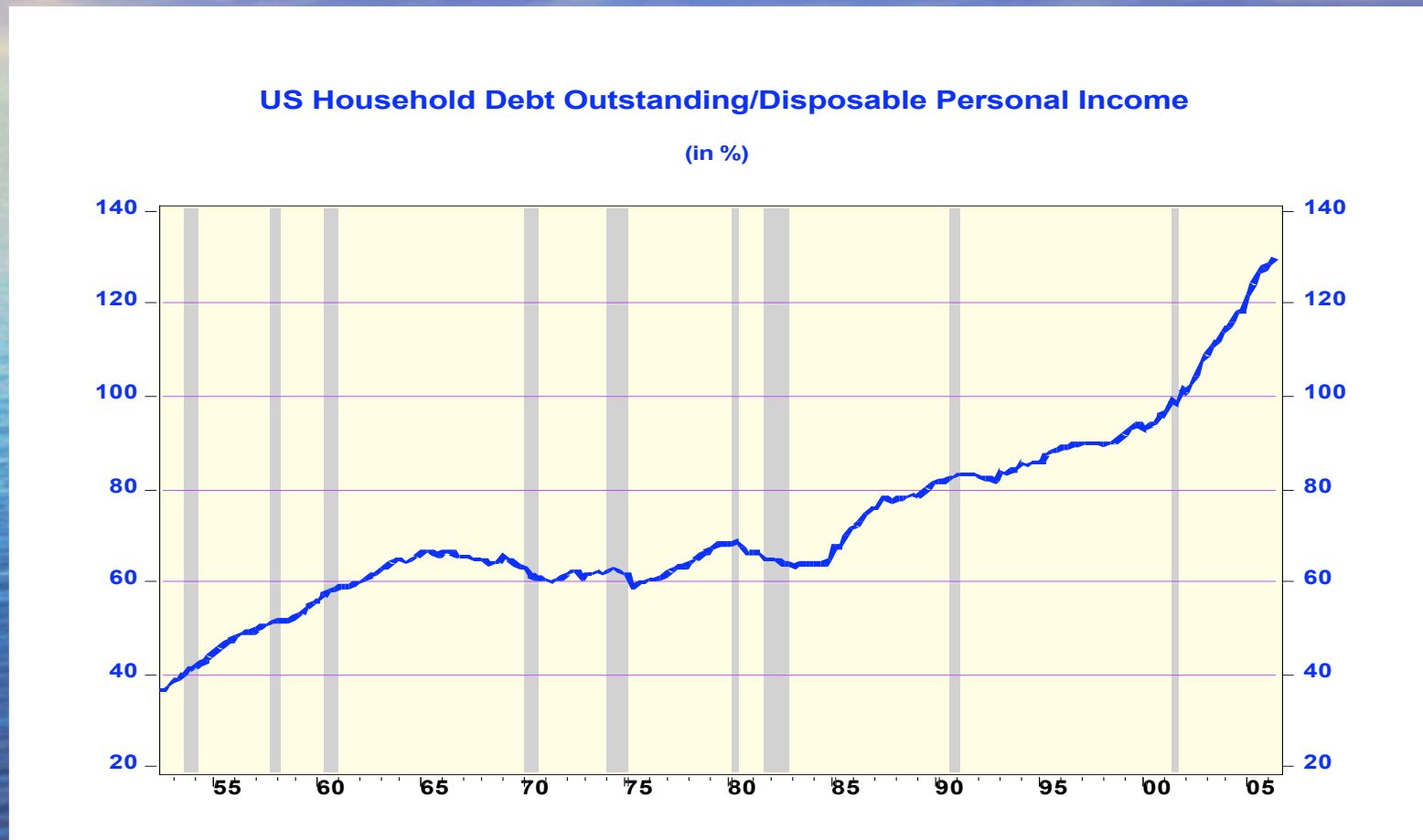
Household Debt Trap: 1st Condition



Household Debt Trap: 2nd Condition



Household Debt/Income Ratio



The Loophole in the Debt Trap Equation & Goodhart's Provocative Question: Is the Fed stuck with serial asset bubbles?

"Perhaps a more useful question is how to respond when such an asset/credit boom does collapse. The current answer seems to be that, should one asset market, in this case the stock market, collapse, then the right response is to recreate another asset price/credit boom in another market, in this case the housing market."

Charles Goodhart, reply to BIS Working Paper No. 137 by Barry Eichengreen

But this strategy is not easy to manage on the upside

“I cannot rule out the possibility that destabilizing imbalances are building...

Households with high debt loads need to take account of the fact that interest payments on their floating rate loans will increase...

Households and those that lend to them also cannot count on large increases in house prices persisting.”

Fed Vice Chairman Donald Kohn, April 1, 2005

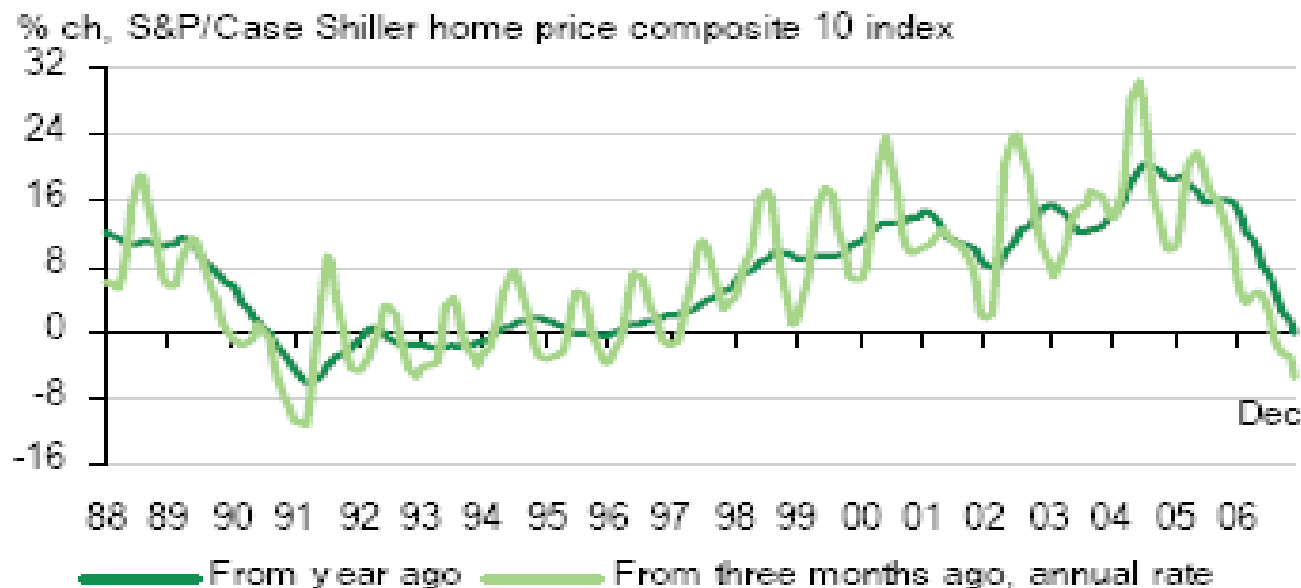
Soft Landing or Hard Landing?

Examining 6 Stages of Decoupling

- Decoupling of housing construction from home prices
- Of housing market from housing related finance
- Of consumer spending from housing
- Of capital spending from the consumer
- Of corporate profits from expenditure growth
- Of global economy from US economic momentum

1st Decoupling Debate: Home price appreciation and construction

The monthly data now show a declining trend, with the rate of decline accelerating as 2006 ended.



Source: Standard & Poor's, Fiserv, MacroMarkets LLC

1st Decoupling: Building from home price appreciation

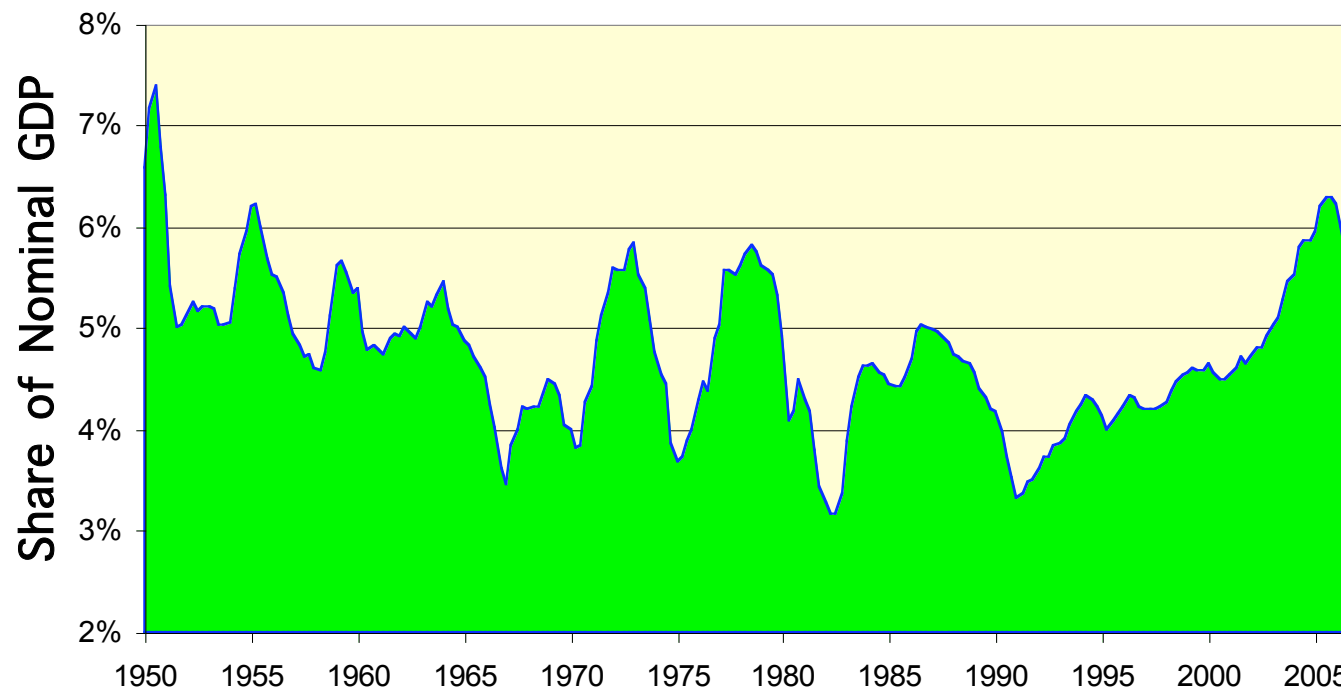
Chart 2: Completions Always Converge on Housing Starts ... Nine-months Later
(thousand units)



Source: Census, Merrill Lynch

1st Decoupling Debate: Building from home prices

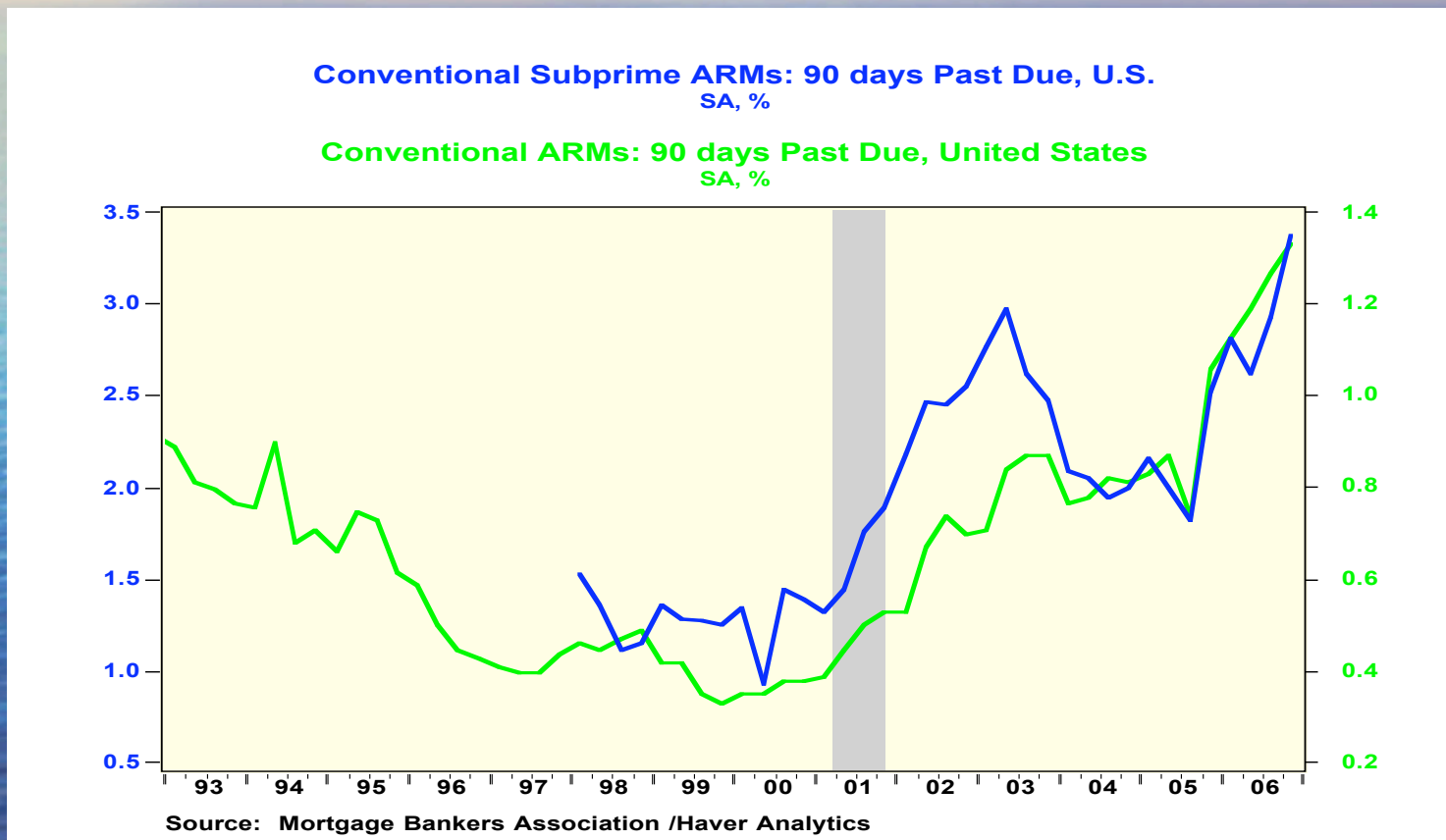
Housing Share of the US Economy: A completed correction?



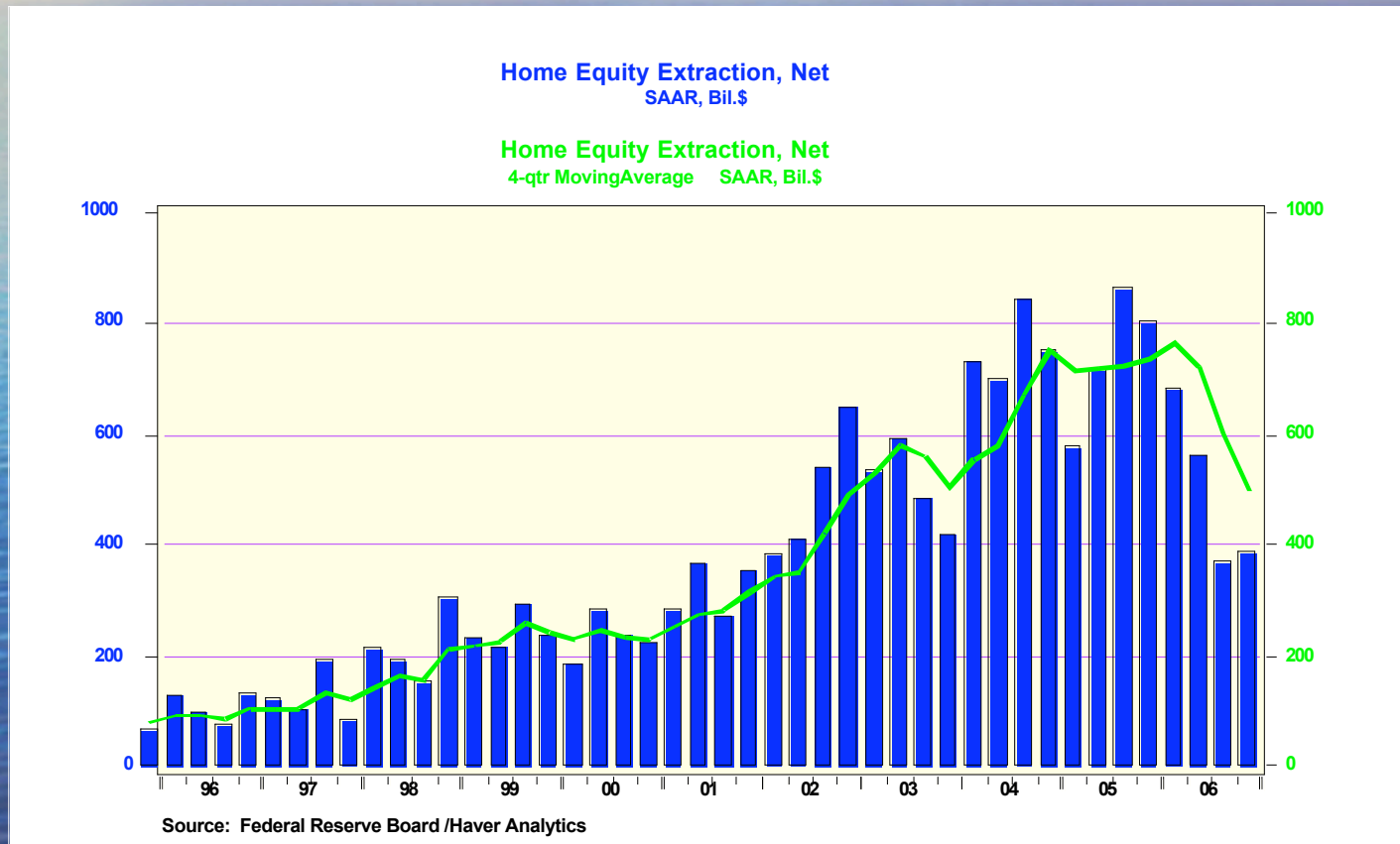
2nd Decoupling Debate: Housing related finance from home building

- **Wells Fargo buying more 'sub-prime' mortgages**
- By E. Scott Reckard, Times Staff Writer
December 5, 2006
- **At a time of pinched profits in the mortgage industry, Wells Fargo & Co. is increasing its lending to risky borrowers** — betting that they will sign up for additional services such as checking accounts and credit cards
- Early last year, Wells Fargo was No. 7 in originating sub-prime mortgages, according to National Mortgage News. The trade publication calculated that Wells moved into the No. 1 slot by tripling its investment in sub-prime mortgages to \$43.7 billion during the first half of this year, mostly by buying loans from other lenders.

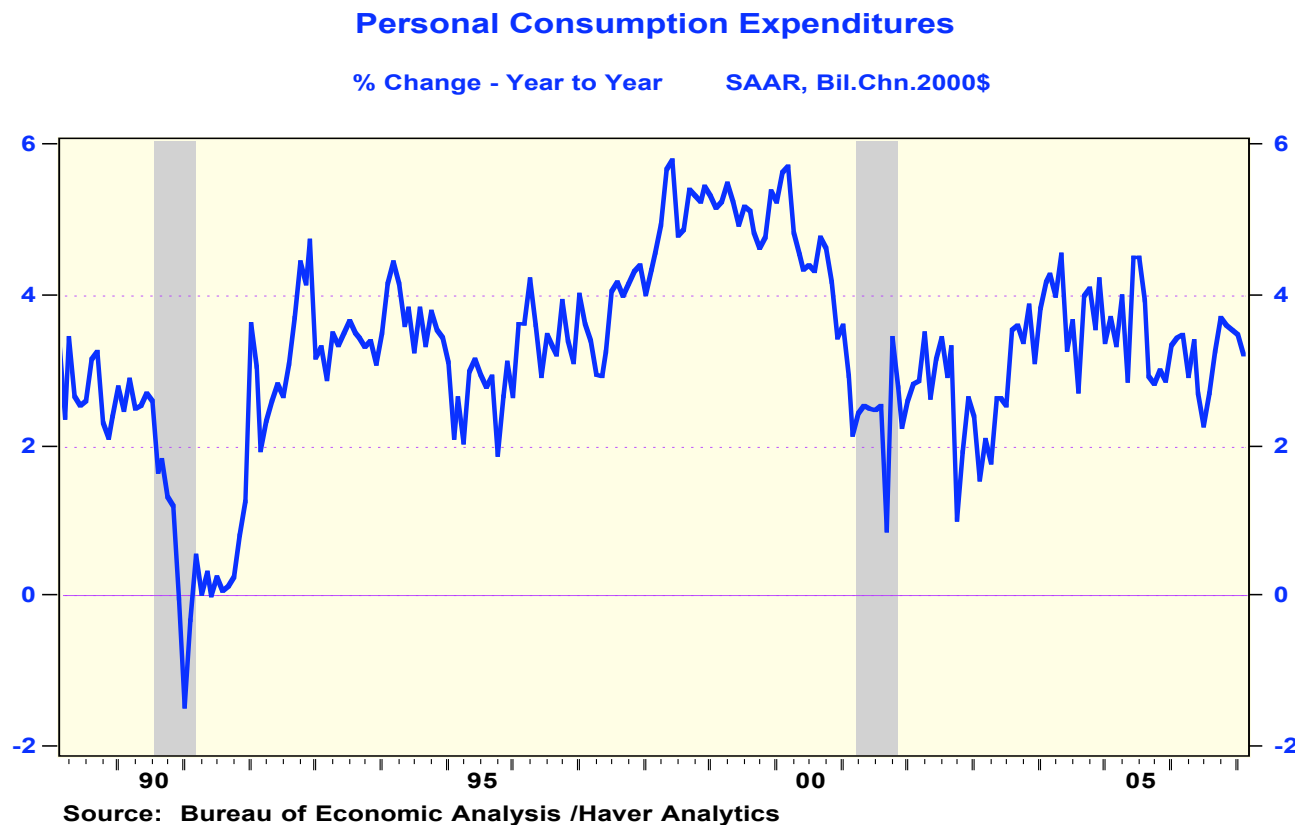
2nd Decoupling Debate: Housing related finance from home building



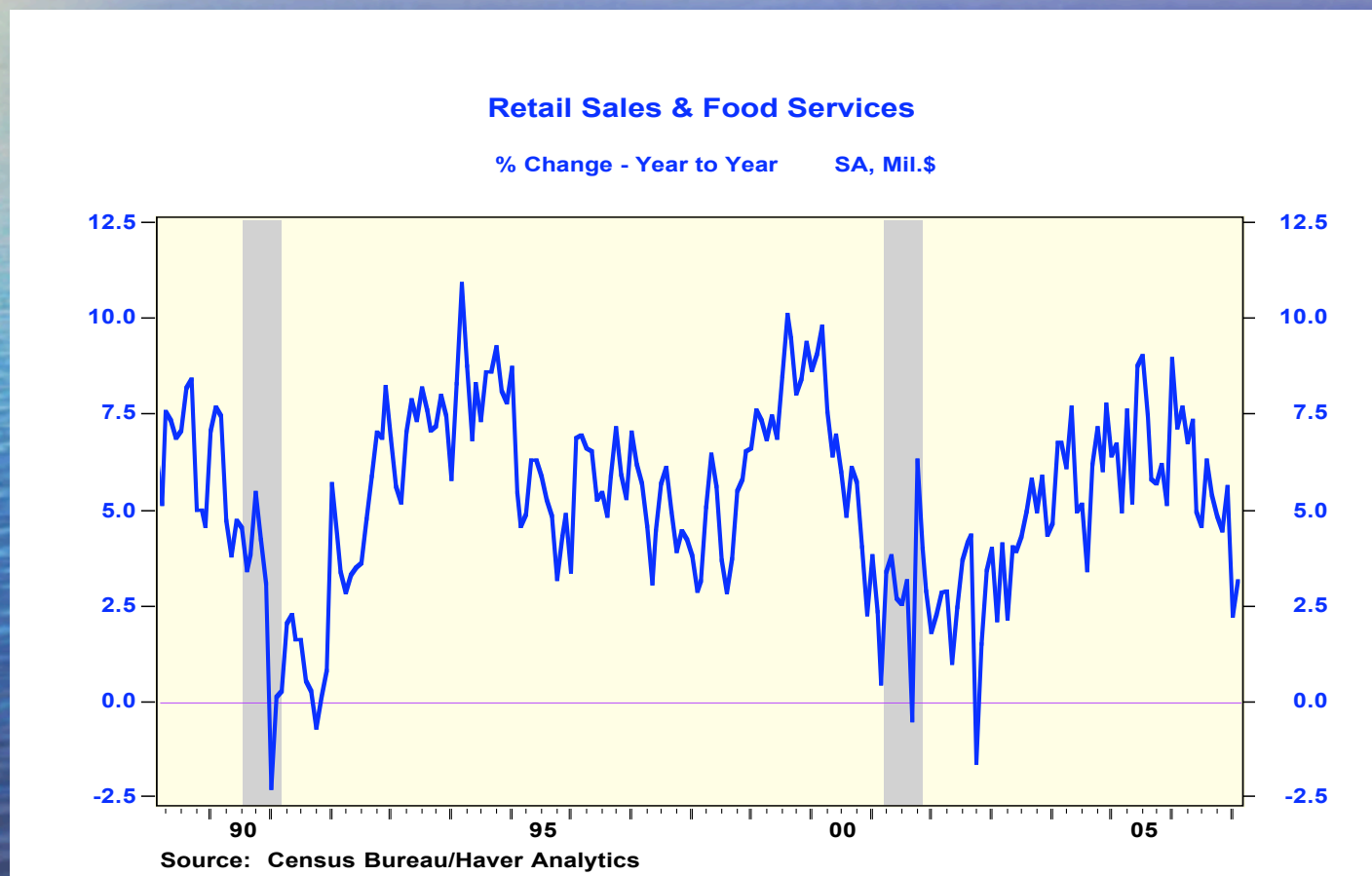
2nd Decoupling Debate: Housing related finance from home building



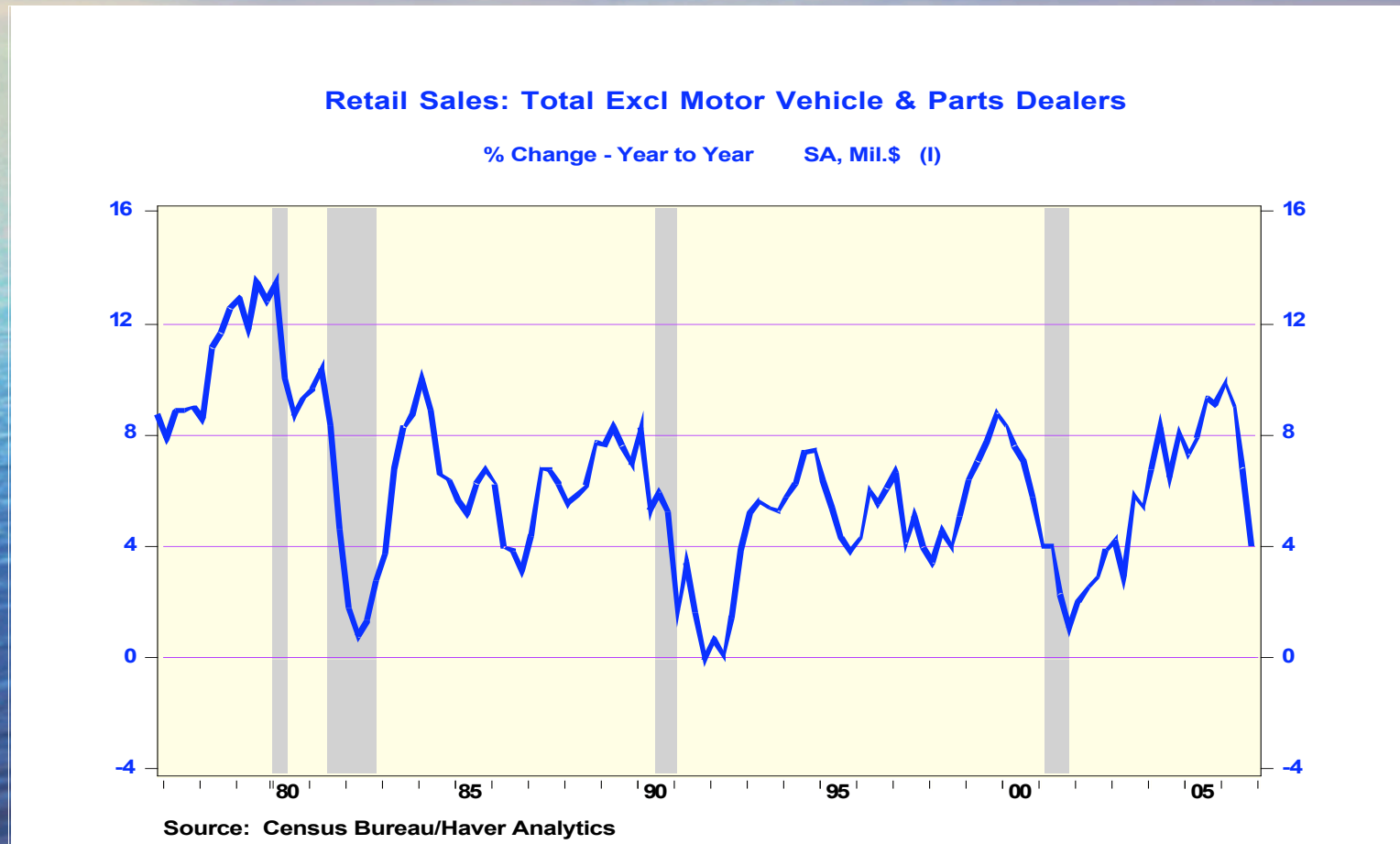
3rd Decoupling: Consumer spending from housing activity and finance



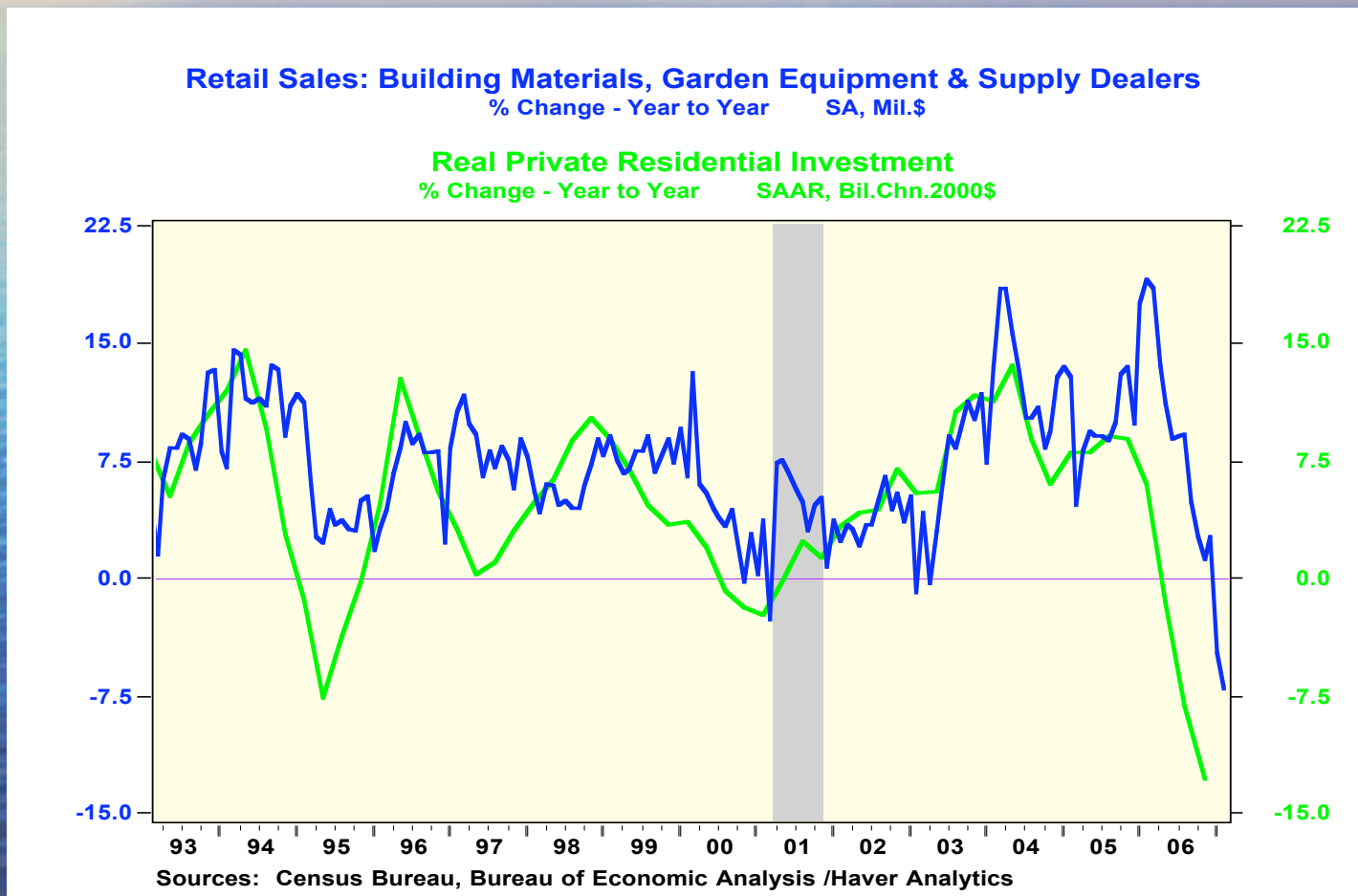
3rd Decoupling: Consumer spending from housing activity and finance



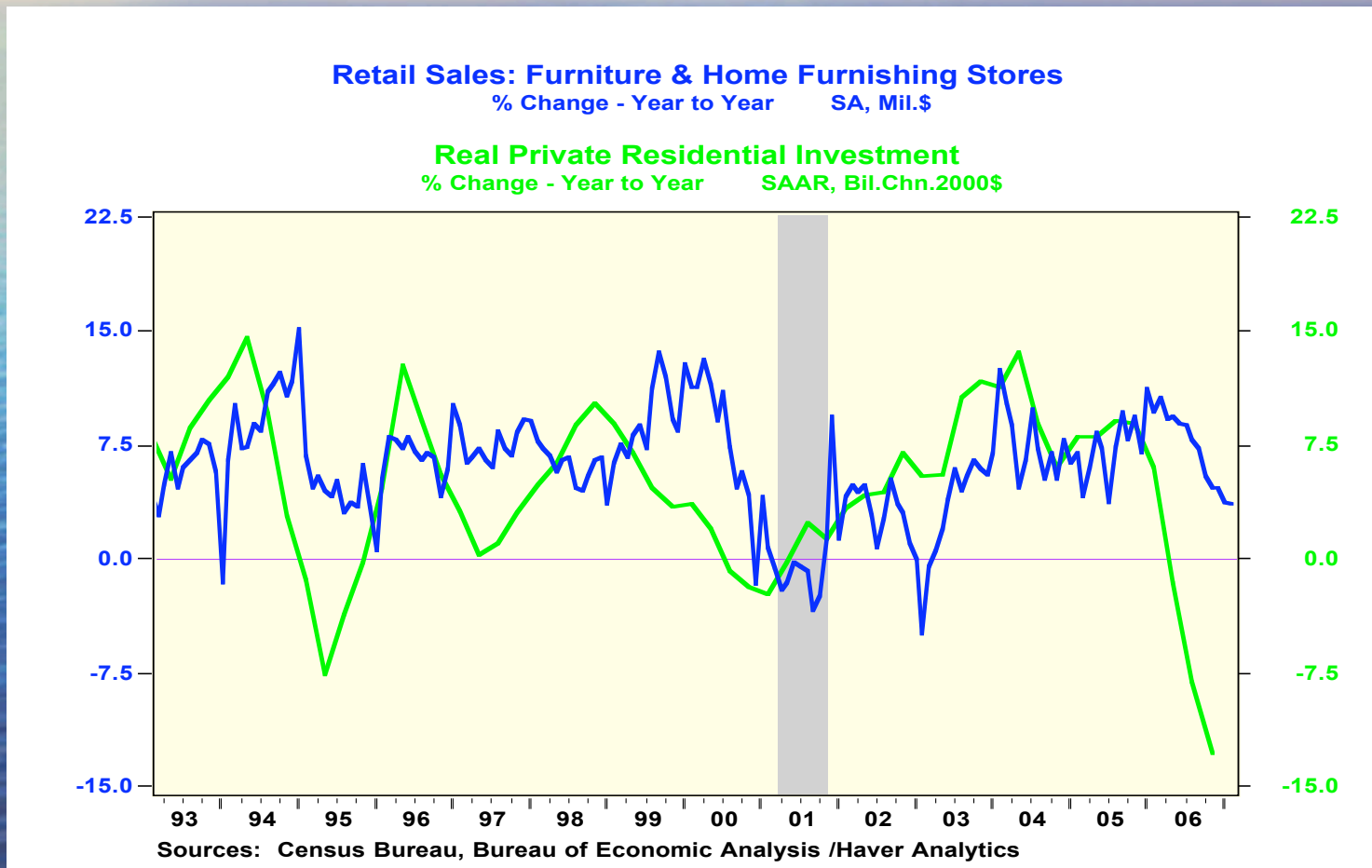
3rd Decoupling: Consumer spending from housing activity and finance



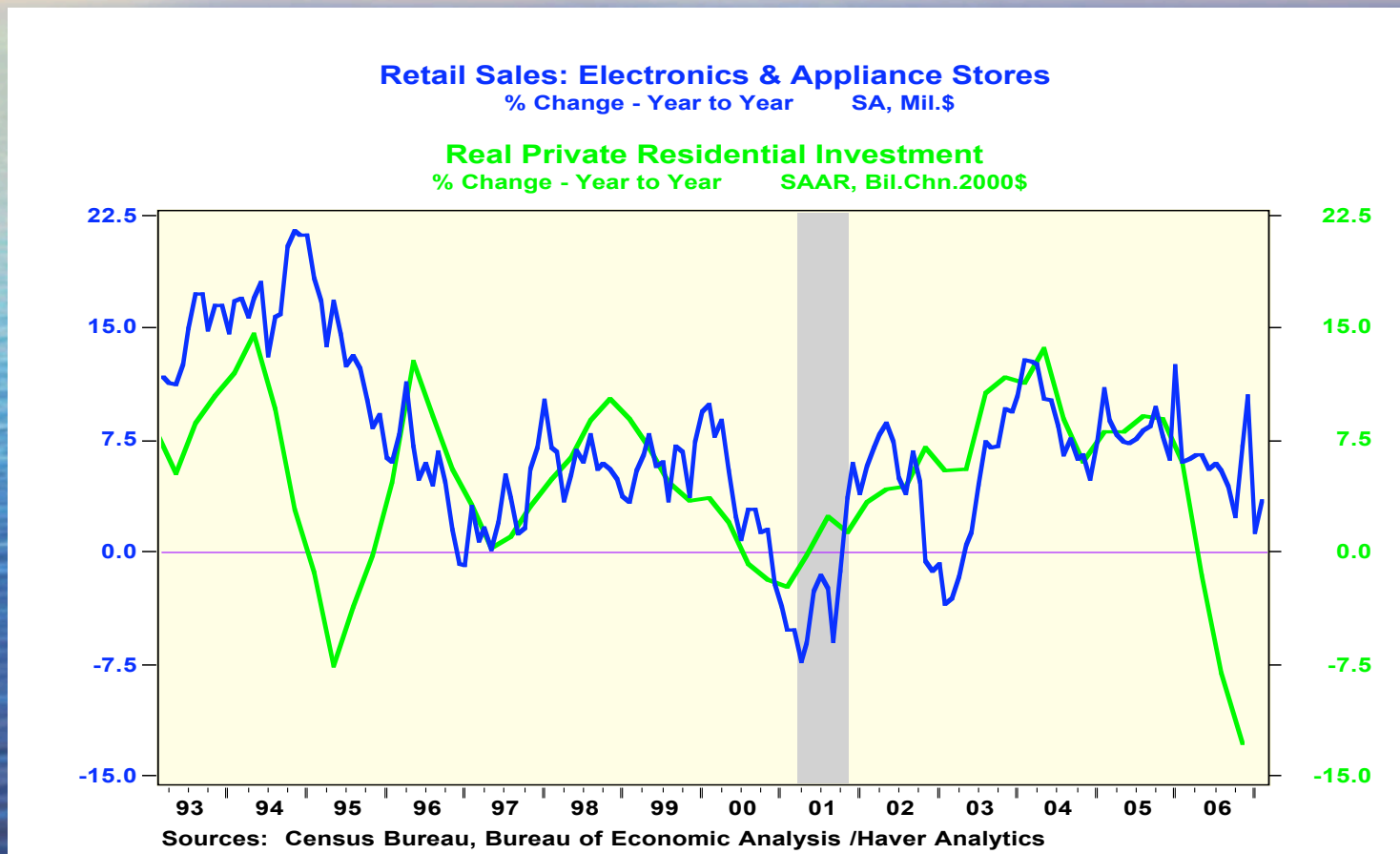
3rd Decoupling: Consumer spending from housing activity and finance



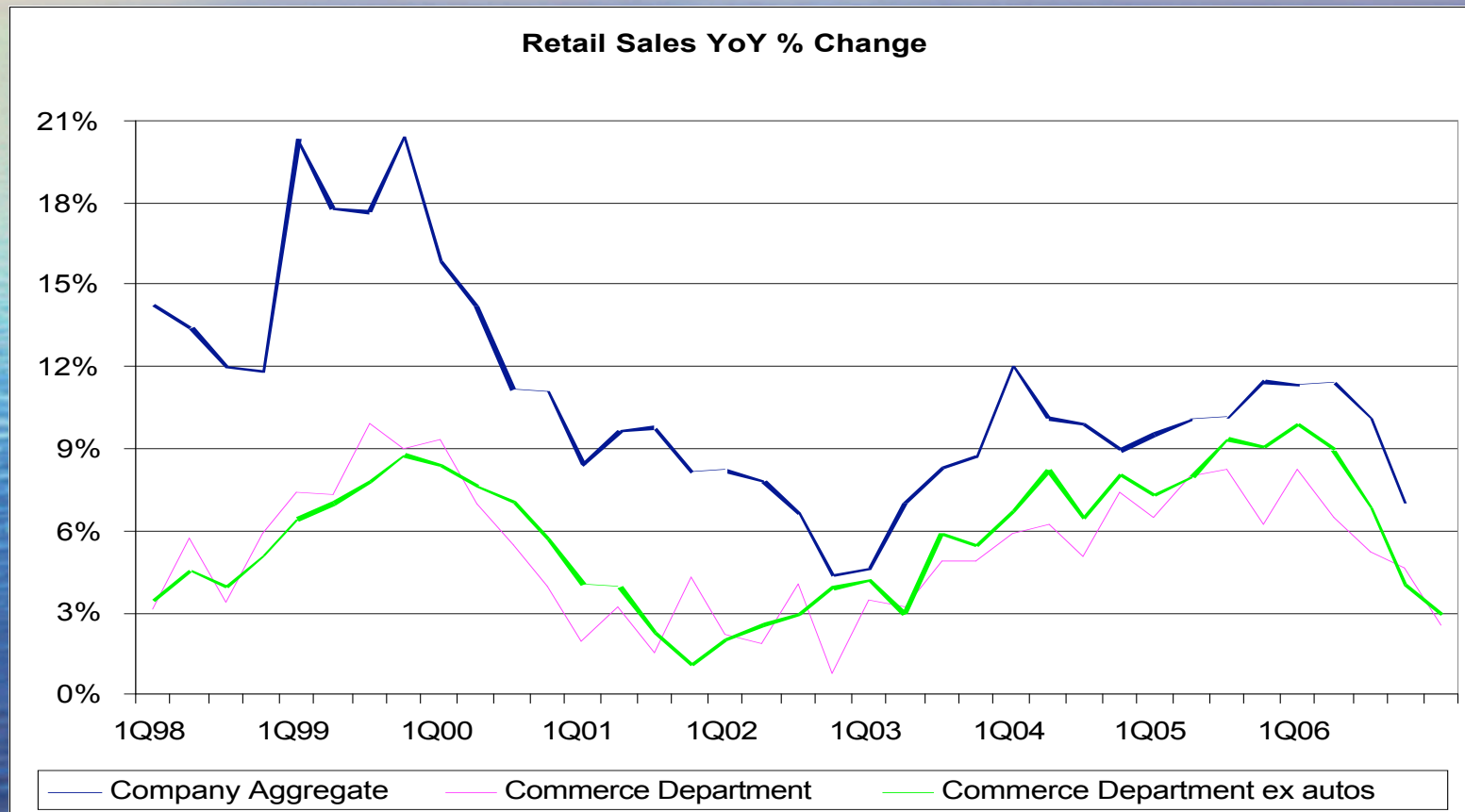
3rd Decoupling: Consumer spending from housing activity and finance



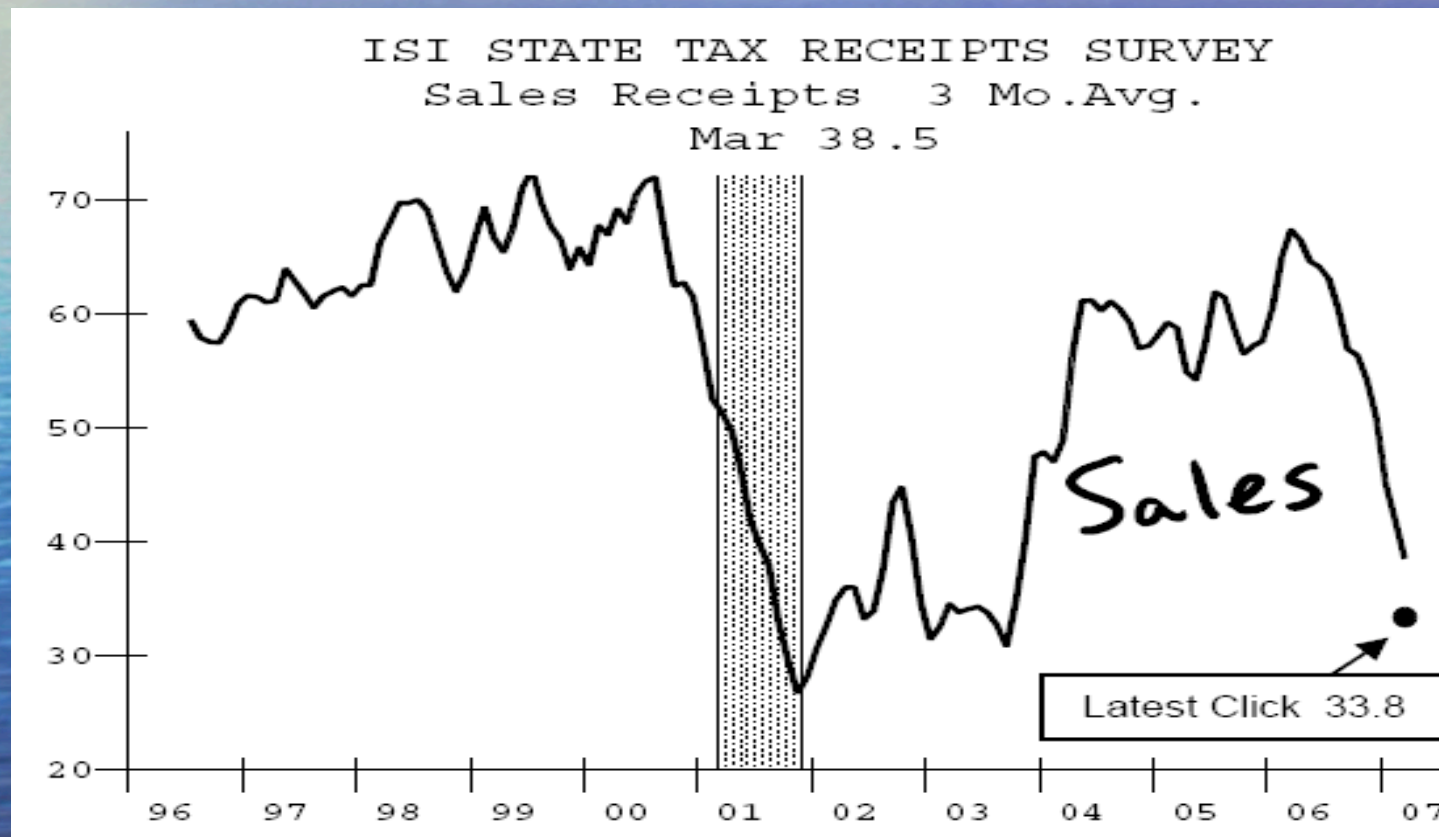
3rd Decoupling: Consumer spending from housing activity and finance



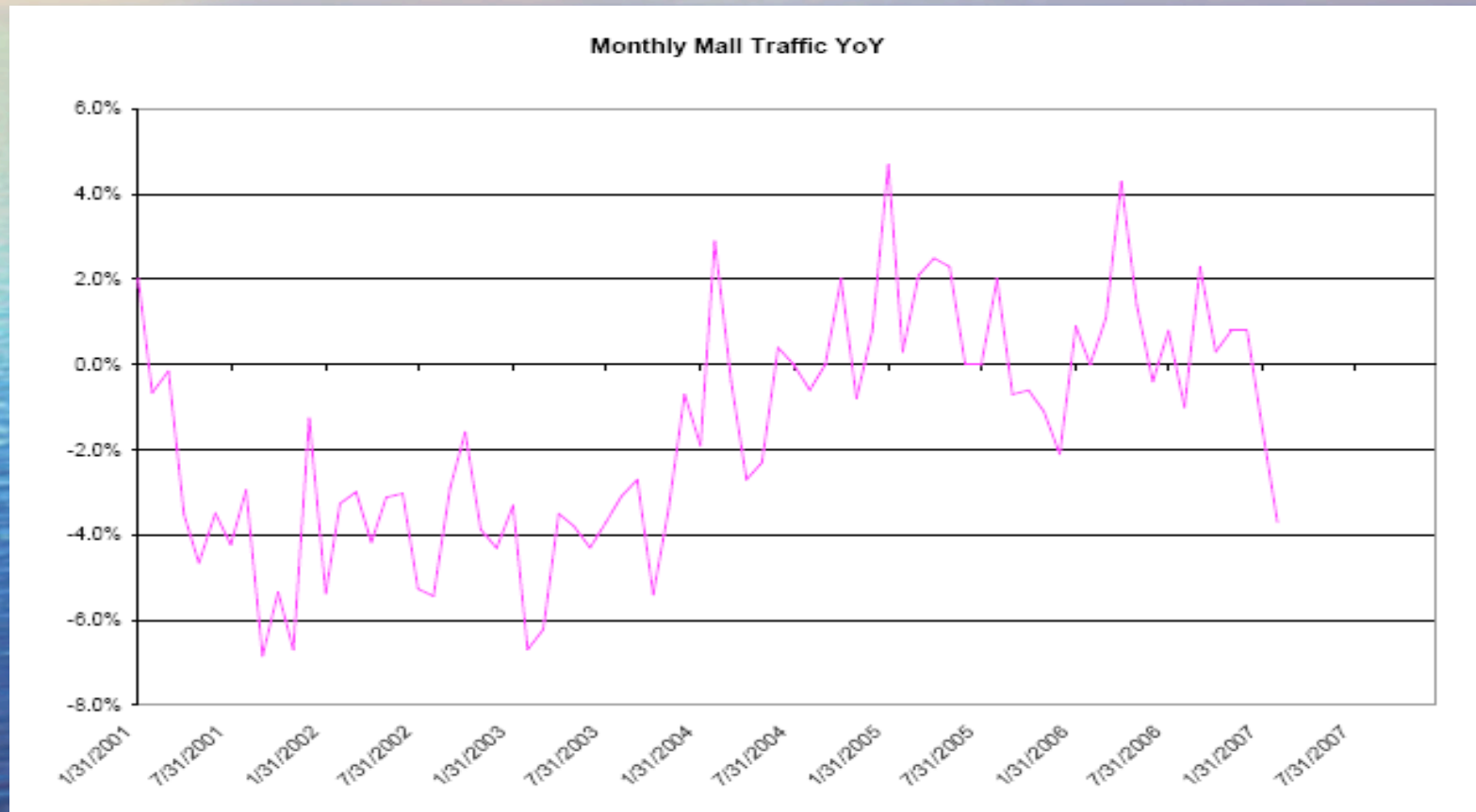
3rd Decoupling: Consumer spending from housing activity and finance



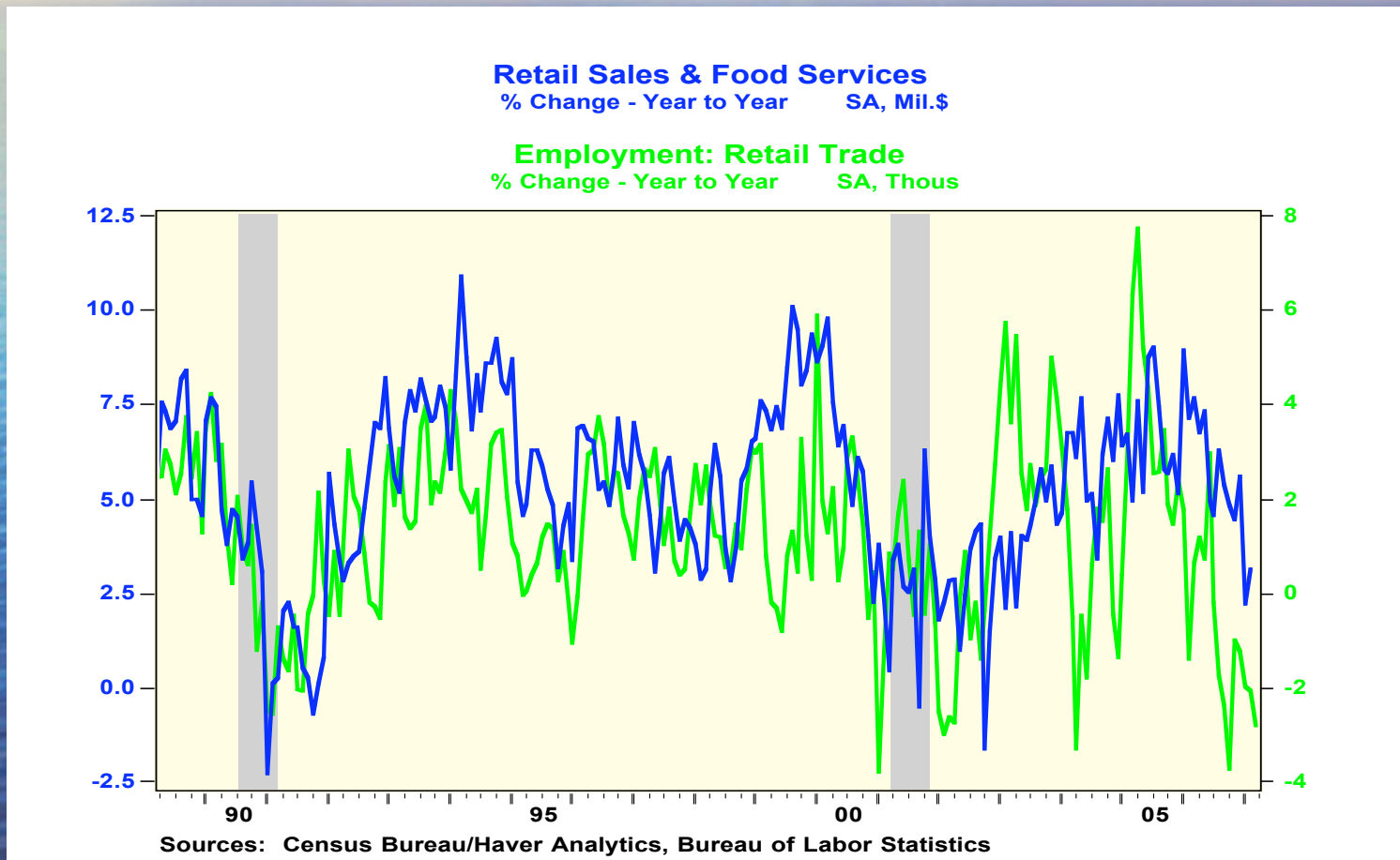
3rd Decoupling: Consumer spending from housing activity and finance



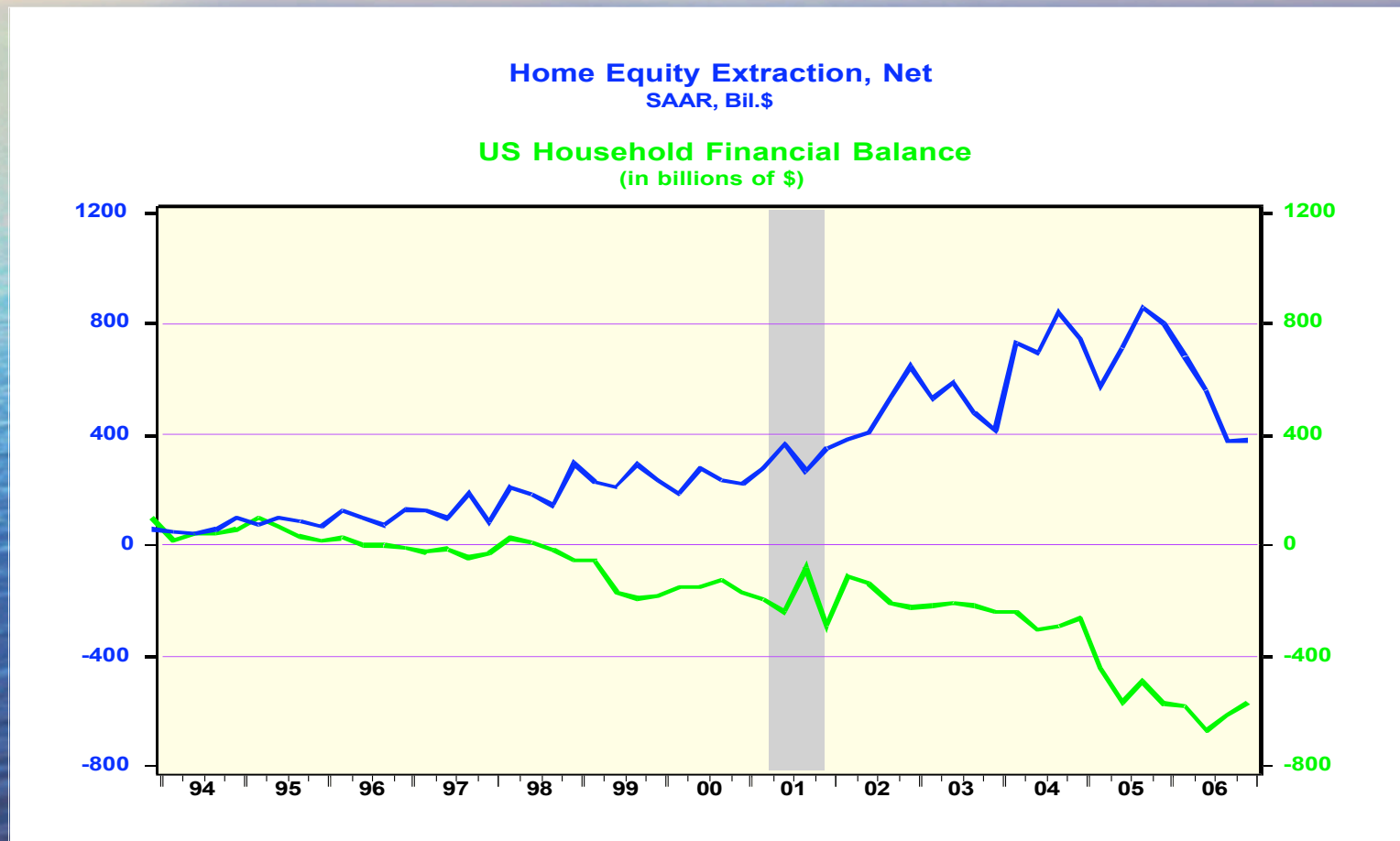
3rd Decoupling: Consumer spending from housing activity and finance



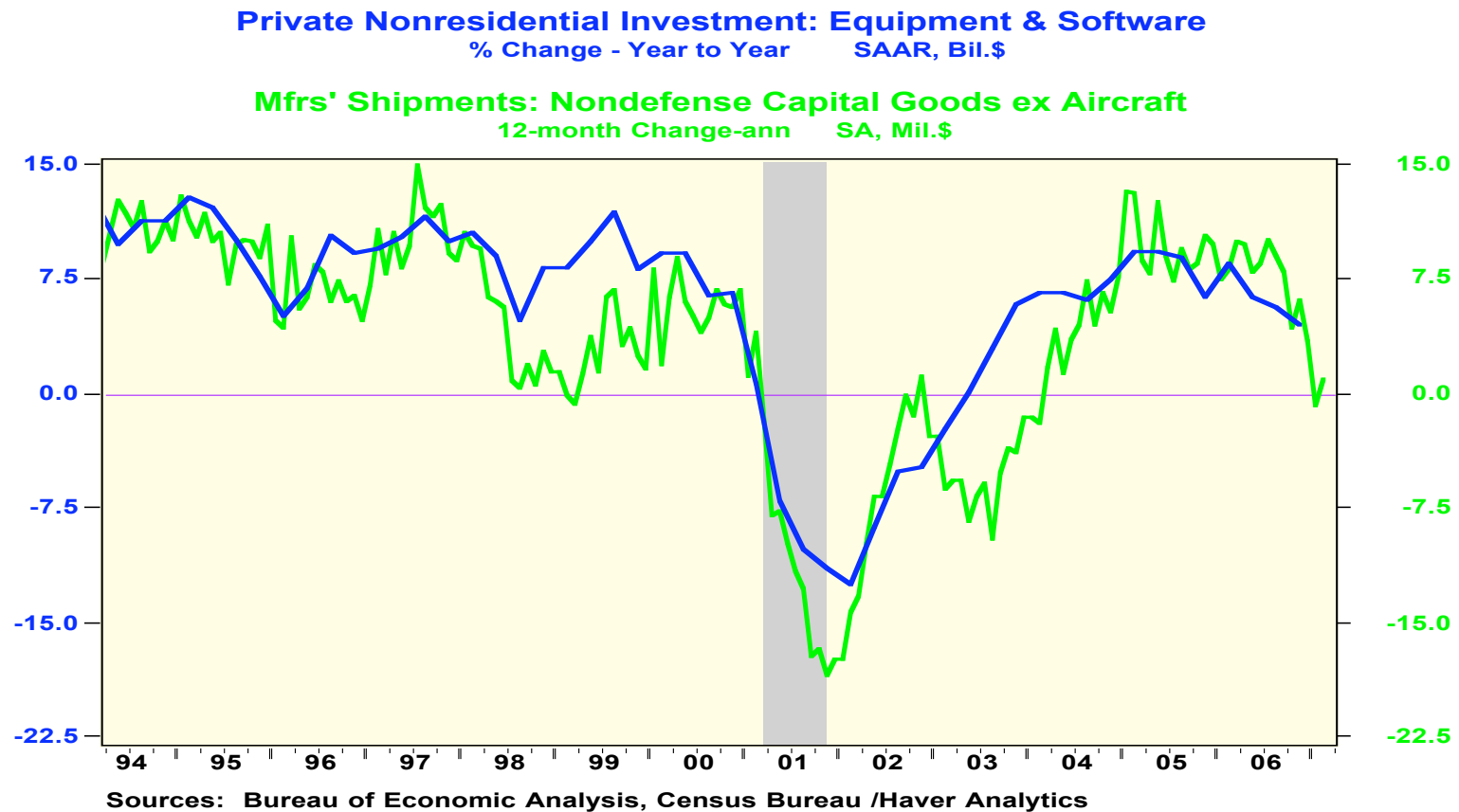
3rd Decoupling: Consumer spending from housing activity and finance



3rd Decoupling: Consumer spending from housing activity and finance



4th Decoupling: Capital spending from consumer spending

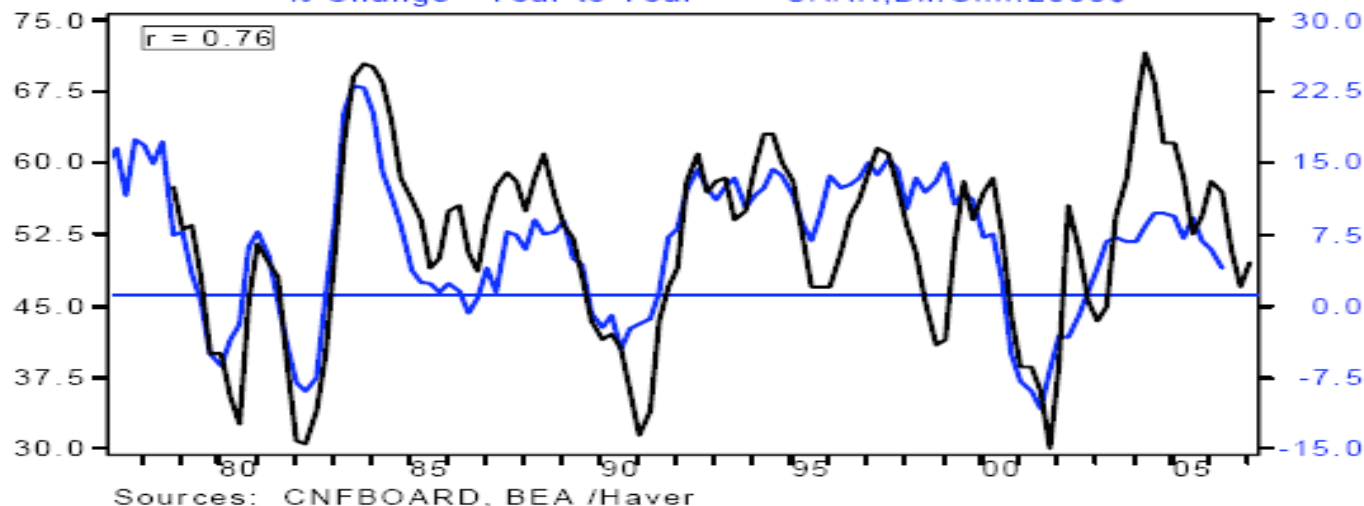


4th Decoupling: Capital spending from consumer spending

Here's why capex growth has sunk in the past six months: CEOs don't seem to look much further than their front doors when making decisions to invest. The Current Economic Conditions component of the Conference Board CEO confidence has the best correlation with capex spending with a two quarter lag (see chart below). There was some improvement in the index in 1Q, so this might be telling us that business fixed investment may start to improve this summer.

Chart 1:

CEO Bus Conf: Current Economic Cond in Own Ind vs 6 Months Ago
2-qtr Moving Average 50+=Positive
Real Private Nonresidential Investment: Equipment & Software [+2]
% Change - Year to Year SAAR, Bil. Chn. 2000\$



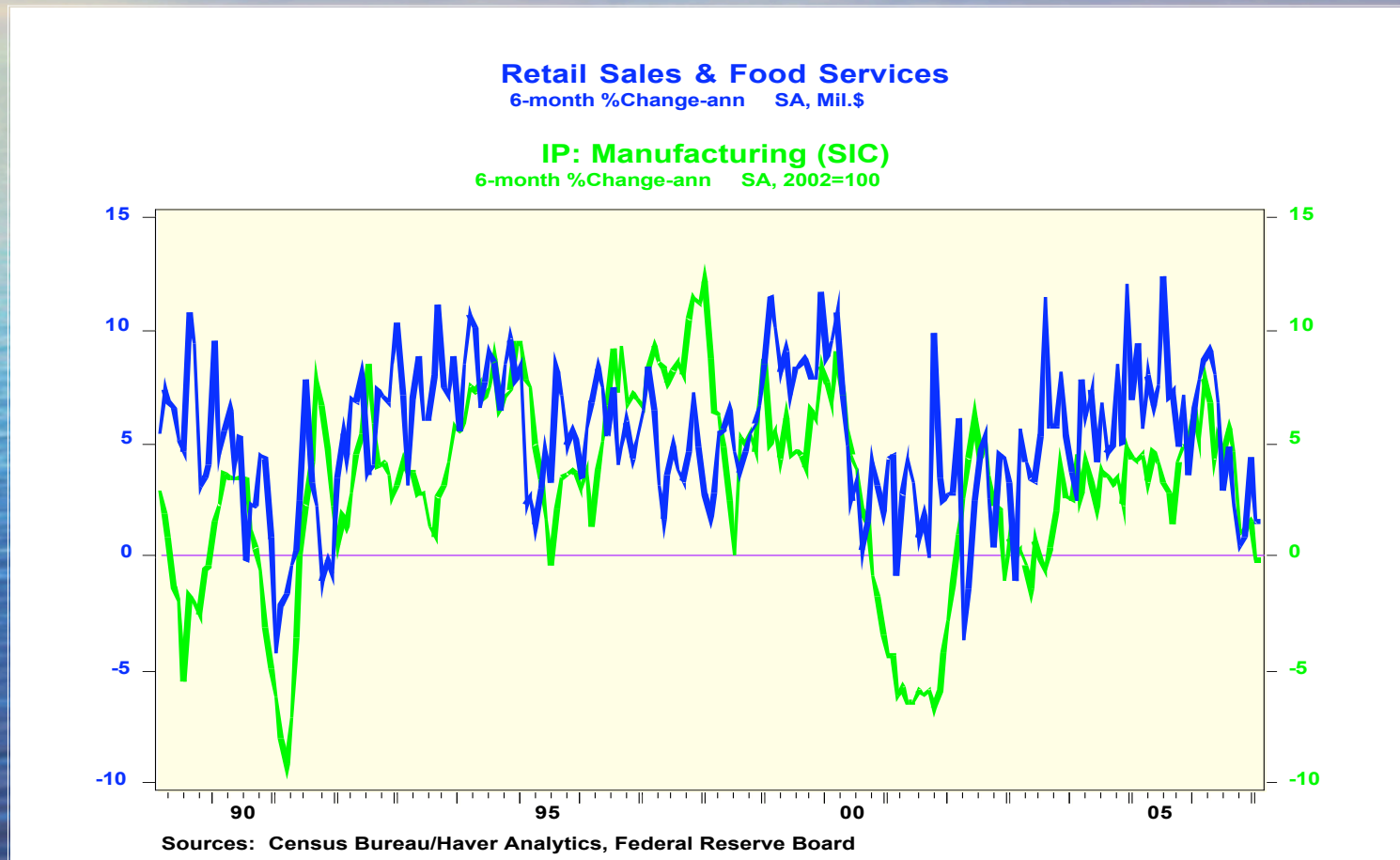
4th Decoupling: Capital spending from consumer spending

Nonfinancial Net Equity Issuances as a Share of Market Capitalization

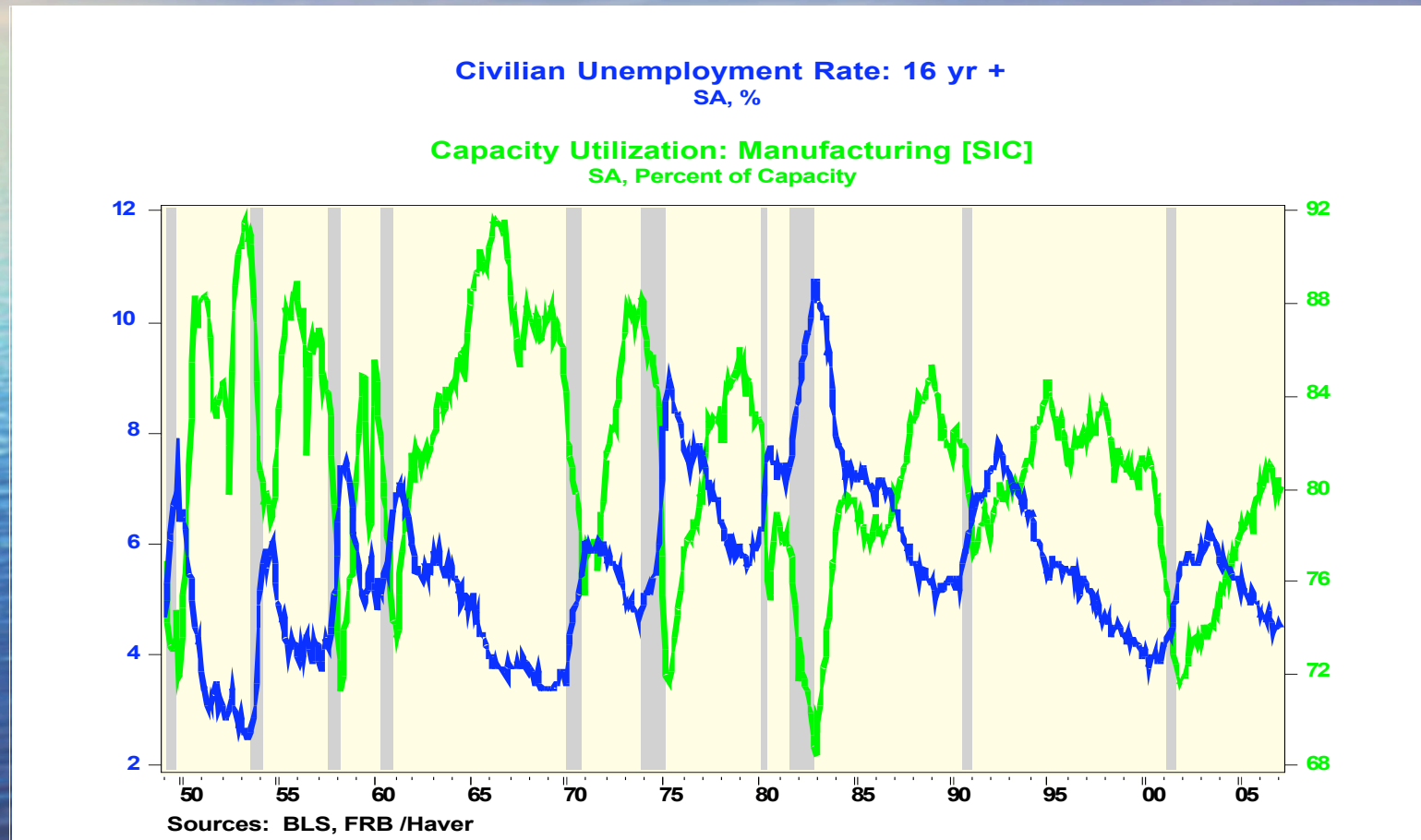
(in %)



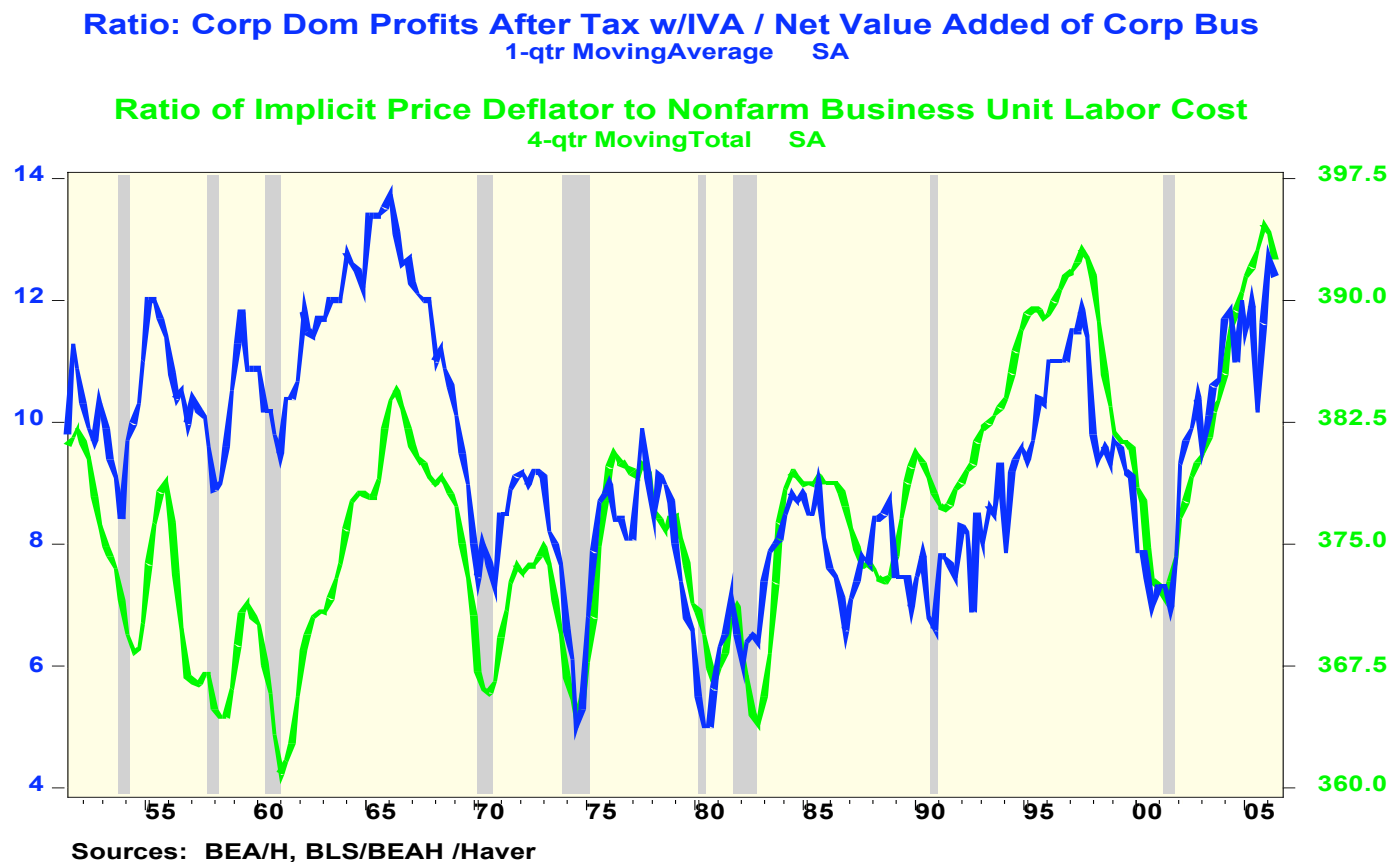
4th Decoupling: Capital spending from consumer spending



4th Decoupling: Capital spending from consumer spending

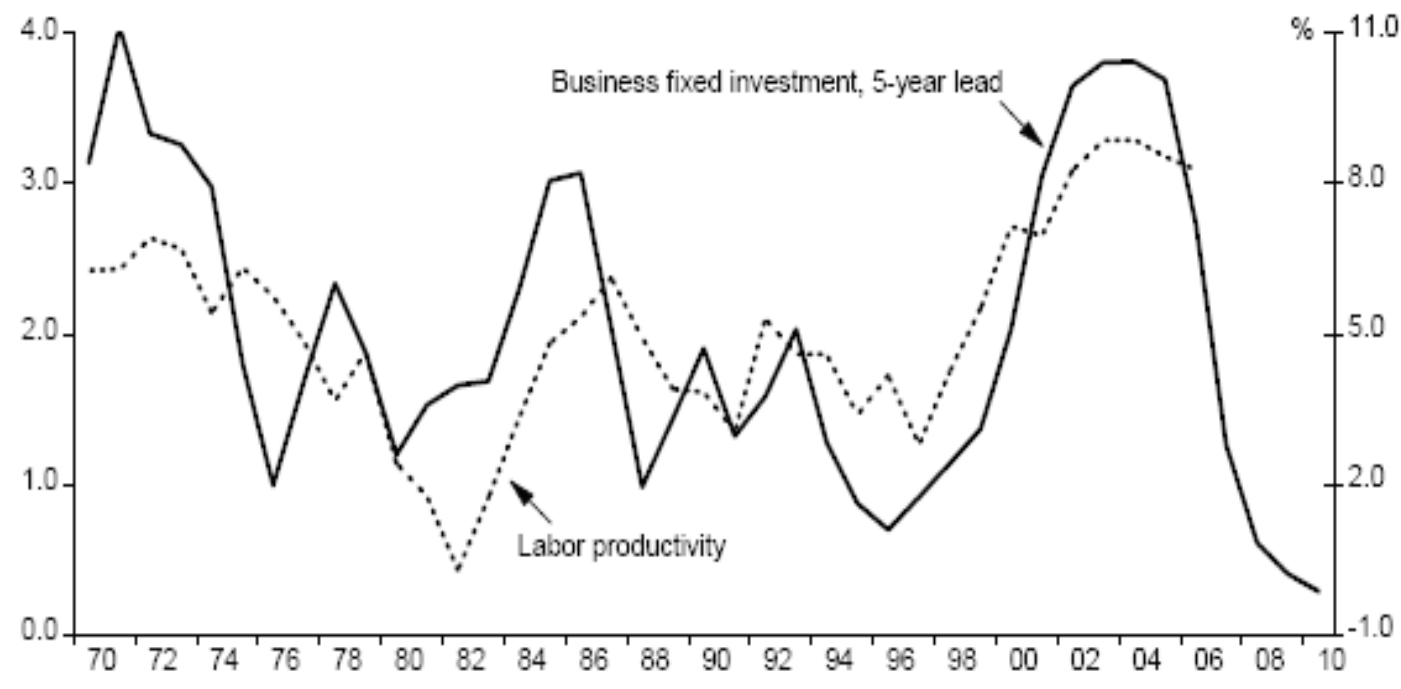


5th Decoupling: Profits from expenditure growth



5th Decoupling: Profits from expenditure growth

Five year average annual % change in US labor productivity and business investment



Source: Thomson Financial Datastream

The Kalecki Macro Profit Relation & the Profit Share Surge

$$R + W + T + M = I + C + G + X$$

$$R = I + (C - W) + (G - T) + (X - M)$$

$$C = C_w + C_r$$

$$S_w = W - C_w$$

$$FB = T - G$$

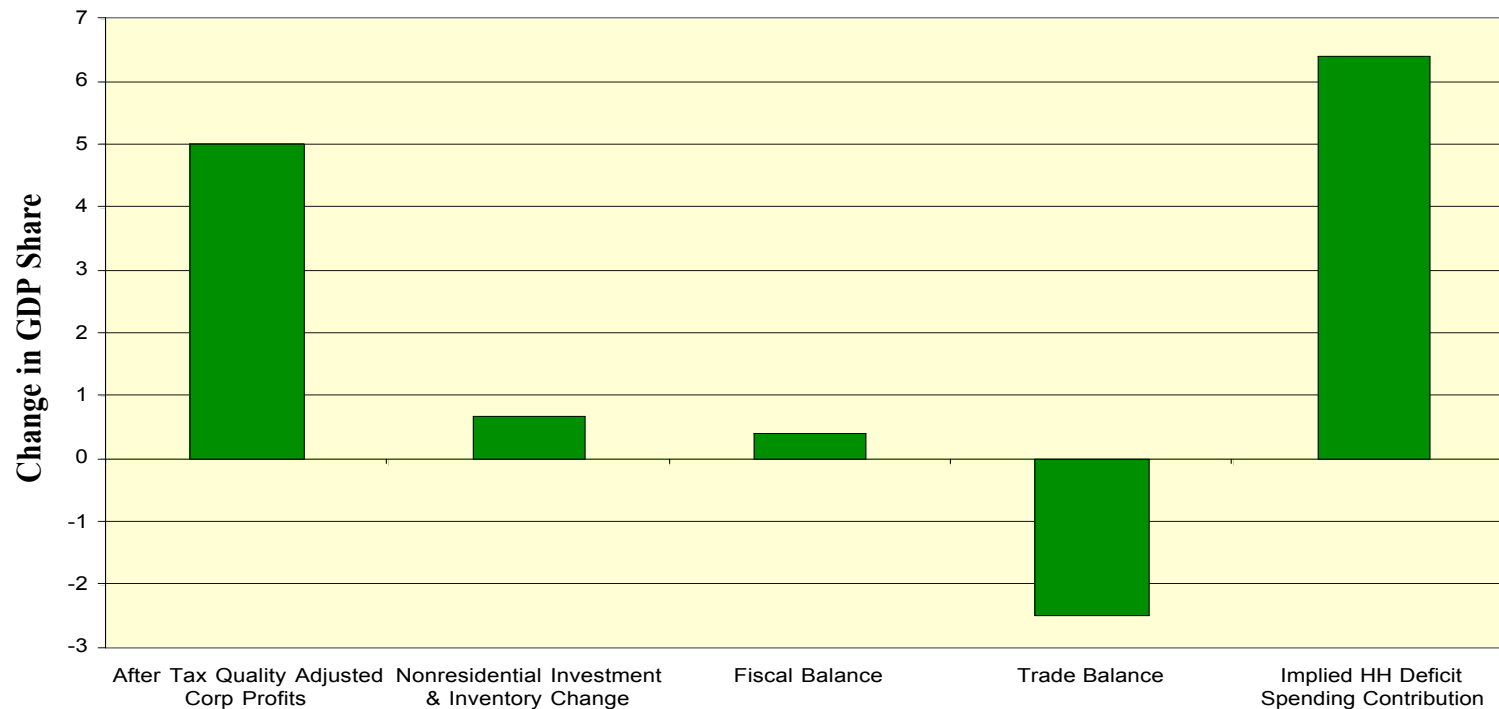
$$TB = X - M$$

$$R = I + C_r - S_w - FB + TB$$

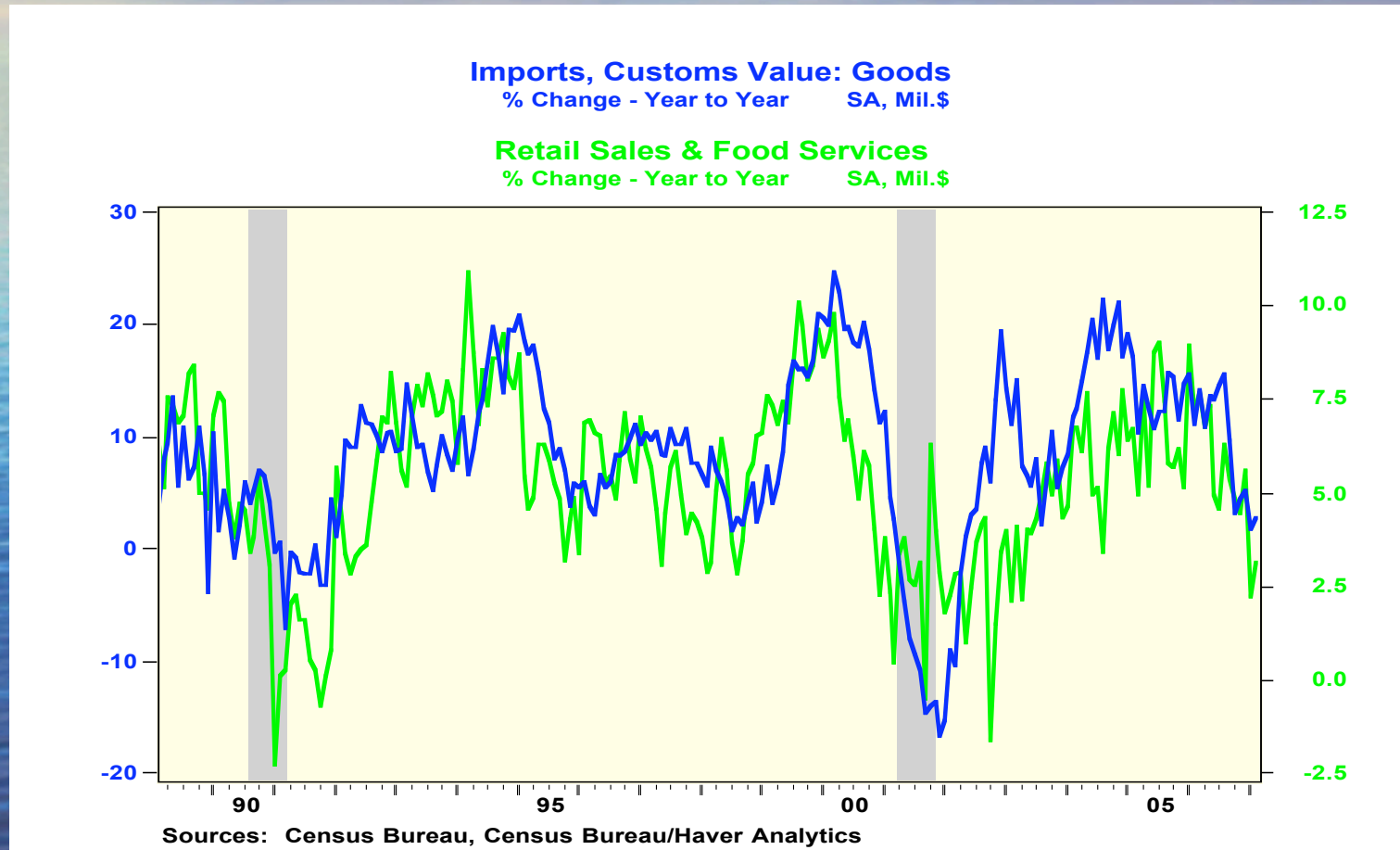
$$R/Y = (I + C_r - S_w - FB + TB)/Y$$

Applying the Keynes/Kalecki Relation to the Recent Expansion

**Contributions to the Corporate Profit Share Surge
2001 Q4 - 2006 Q2**

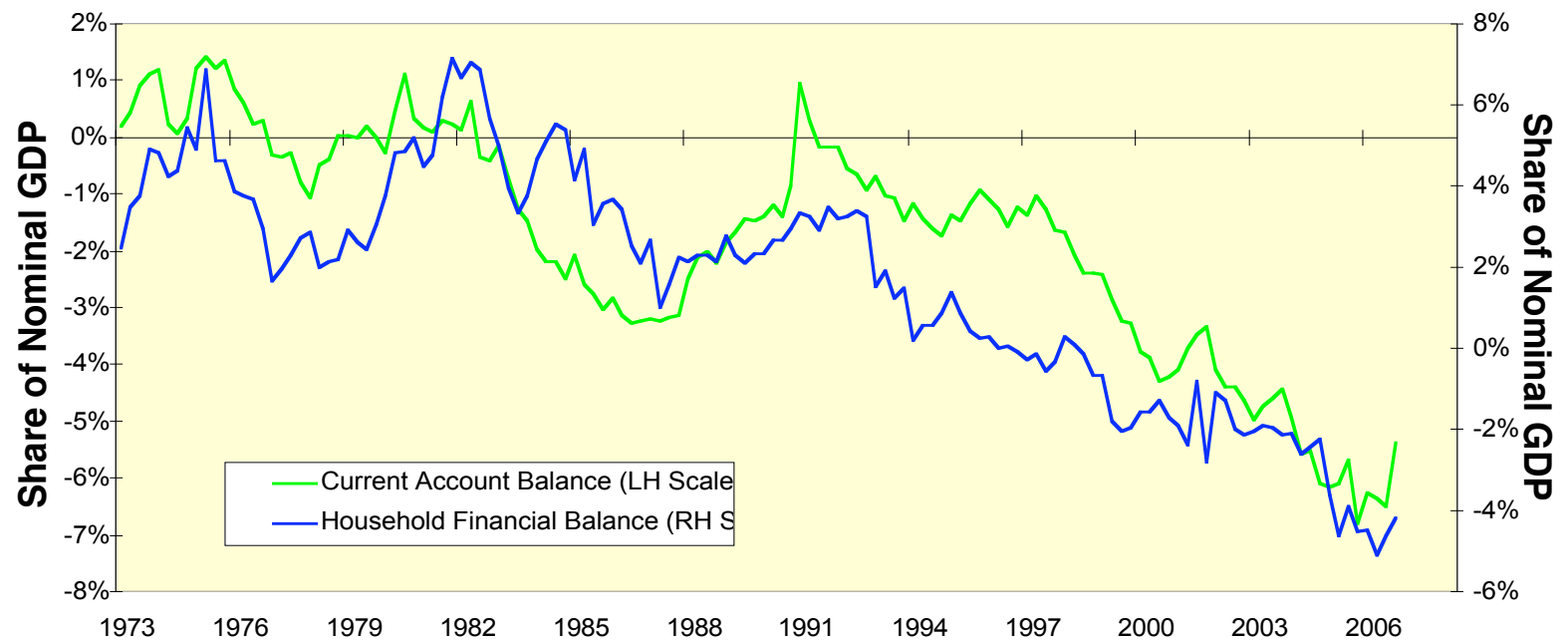


6th Decoupling: Global growth from US economic momentum



6th Decoupling: Global growth from US economic momentum

**The US Current Account Deficit Primarily
the US Household Financial Balance**



Mr. Magoo-onomics, like Fairy Tales, Investment Porn, and Perpetual Wolf Crying, must go!



New Financial Architecture

- Moving away from a commercial bank centered financial system
- Toward investment bank and institutional investor centered financing
- Rapid innovation of financial instruments
- Aimed at redistributing/reconfiguring risk
- Heavy reliance on quantitative techniques
- Hy's portfolio manager capitalism - on steroids

New Financial Architecture: Down on the farm version

- Players:
 - Investment banks (Goldman Sachs)
 - Pension fund managers (GSAM)
 - Hedge funds (GS Global Alpha, Amaranth)
- Games and instruments:
 - Leveraged buyouts/private equity
 - Derivatives
 - Interest rate swaps
 - Credit default swaps

Corruption of the Private Credit Allocation Mechanism?

- 40-50% of all mortgage originations by unregulated brokers who are volume/fee maximizers
- Securitization of mortgage loans reduces bank incentives to execute gatekeeper role in determining creditworthiness (not on my balance sheet)
- Diversified nature of securitized debt packages (MBS, CDO) reduces incentive of institutional investor to analyze creditworthiness of any one loan
- Proliferation of credit default swaps allows further distribution of default risk away from credit originators
- In such a world, no down payment, “stated” income or low documentation, option ARMs can proliferate

An Example of Banks Acting as Volume or Fee Income Maximizers

“What the underwriting survey shows this year should give pause. Loan standards have now eased for three consecutive years. **The reasons most frequently cited are competition, often from non-bank investors, and optimistic – perhaps too optimistic – expectations...** With fewer home buyers in the market, competition among lenders appears to be intensifying...that competition has extended to weaker underwriting standards.”

Comptroller of the Currency, John Dugan, October 17th, 2006 speech to American Bankers Association

Financiers Gone Wild: IMF warns on the quality of credit analysis in the NFA

“Discussions with market participants raised questions as to whether the increased focus on ‘structuring’ skills, relative to ‘credit’ analysis, may itself present a concern...

For some mezzanine structured credit products, zero recovery rates are much more likely than on similarly rated corporate bonds, yet the resulting default probabilities and expected losses are mapped into traditional corporate bond rating, which are based on recovery rates that tend to be in the 40-60% range.”

April 2006 Global Financial Stability Report, IMF, ch. 2, “The Influence of Credit Derivatives and Structured Credit Markets on Financial Stability”

Financiers Gone Wild: The over reliance on quantitative methods

“The main problem we have described is that the MBS market is built upon the statistical predictability of mortgage performance. The CDO builds upon that foundation to provide additional liquidity. **As the performance of mortgages shifts due to fundamental changes in origination and servicing practices, investors may be surprised to find the mortgage claim they purchased is based on a pool of loans with very different statistical properties than previously experienced or expected...**Hence the degree of leverage inherent in CDO funding, along with the potential for high volatility in that funding, introduces the potential for public policy issues.”

Mason & Rosner

Financiers Gone Wild: The over reliance on quantitative methods

“If firms today are implicitly selling various kinds of default insurance to goose up returns, what happens if catastrophe strikes?...It may well be that the managers of these firms have figured out the correlations between various instruments they hold and believed they hedged. Yet...the lessons of the summer of 1998 following the default on Russian government debt is that correlations that are zero or negative in normal times can turn overnight to one...A hedged position can become unhedged at the worst times...”

IMF Director of Research, Raghuram Rajan

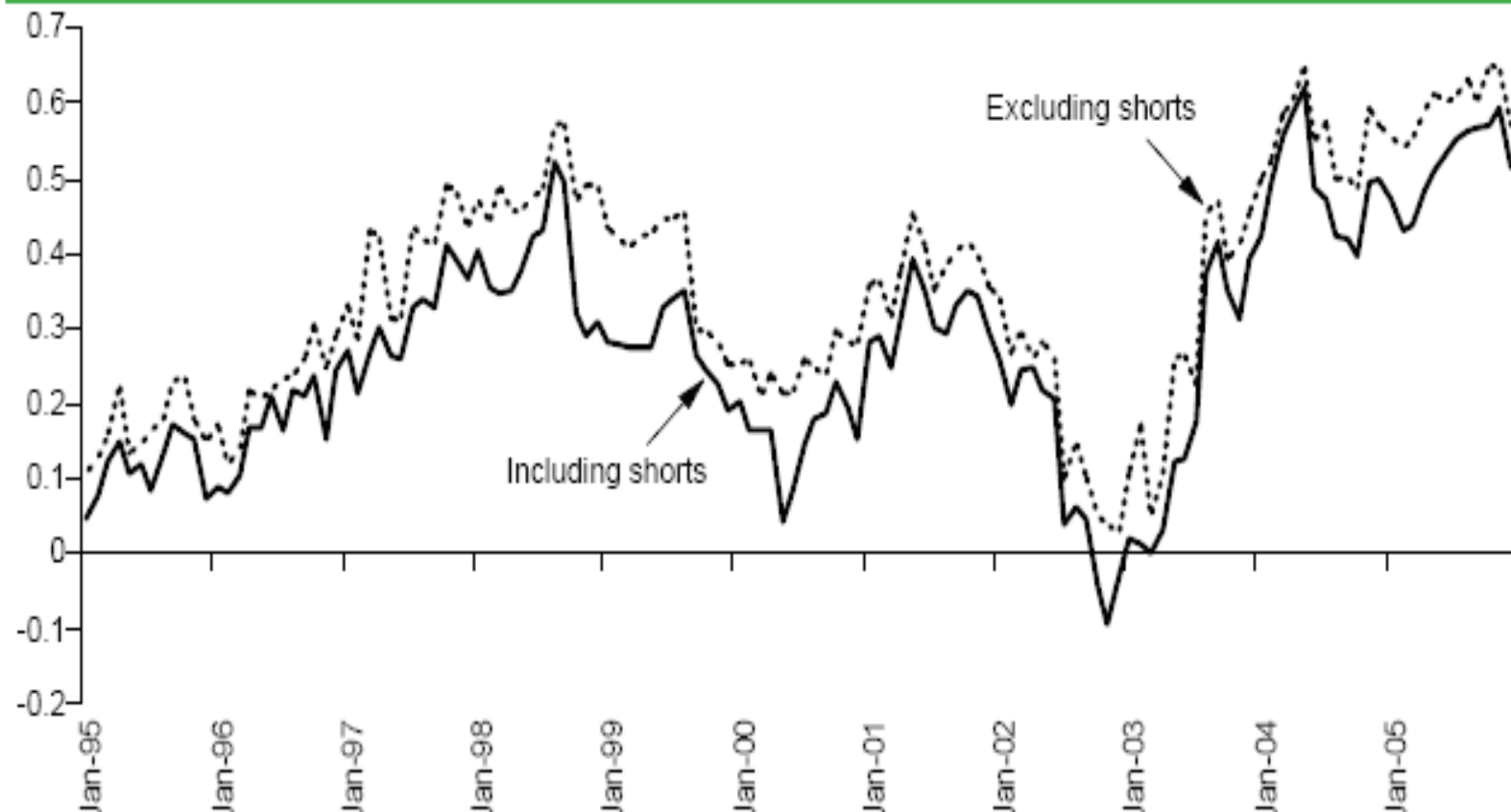
Financiers Gone Wild: The skewing of incentives, tail risk, and herding

“To summarize, overall incentives to take risk have increased. In addition, however, incentives to take tail risk as well as incentives to herd and move prices away from fundamentals, have increased...The two distortions are, however, a volatile combination. If herd behavior moves asset prices away from fundamentals, the likelihood of large realignments—precisely the kind that trigger tail losses—increases.”

IMF Director of Research, Raghuram Rajan

Financiers Gone Wild: The skewing of incentives, tail risk, and herding

Correlation across hedge fund strategies



Financiers Gone Wild: The skewing of incentives, tail risk, and herding

5-Year Correlations of Selected Asset Classes to the S&P 500

5-Year Correlations	2/28/2000	2/28/2006
T-Bills	34%	-58%
Long-term Treasuries	37%	-54%
Goldman Sachs Commodity Index	-14%	33%
Russell 2000	62%	94%
MSCI EAFE®	32%	96%
Hedge Funds	35%	96%

Source: Merrill Lynch U.S. Strategy

Financiers Gone Wild: The desperate search for uncorrelated asset classes

“Topless dancers, magicians and transvestites all add up to one thing for Jean-Phillippe Cartier: a sound investment... Family controlled cabarets such as the Lido and Moulin Rouge fell on hard times... Now private equity investors are snapping up clubs, smartening up interiors and sending their high-kicking , bare breasted dancers overseas as the latest French export.”

“Paris Dancers Pack G-Strings as Investors Send Cabarets Abroad”,
Bloomberg, April 2, 2007 story by Alan Katz

Financiers Gone Wild: An Investment Banker's Plea for Help

“The markets are really, really red hot...The things we are seeing being done, both on the investment grade side and the non-investment grade side, are I would say borderline stupid...There is just too much capital going after too little by way of deals.”

Goldman Sachs Chief Underwriting Officer for Europe and Asia, Eugene Leouzon, quote in a Reuters Nov. 16, 2006 story

Financiers Gone Wild: A Private Equity Financier's Plea for Help

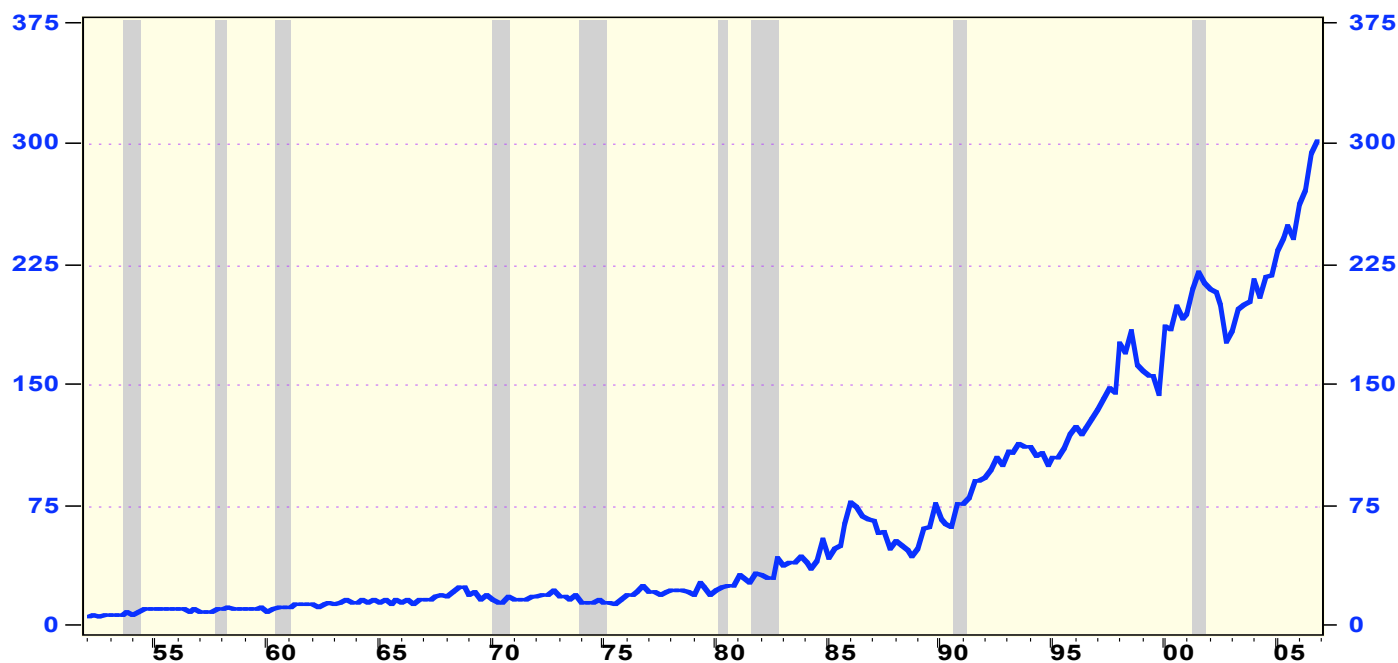
“The amount of leverage available is just so strong, very scary, but very strong. Leverage is available in record amounts... We're all going to struggle for returns.”

Warren Hellman, chairman of private equity firm Hellman & Friedman, quoted in S.F Business Times, November 16, 2006

Wall Street's Balance Sheet is Behind the Liquidity/Leverage Surge, Not the Fed's

Broker/Dealer Financial Assets Relative to Federal Reserve Assets Held

(in %)



Central Bankers may rely too much on a moral hazard ridden asset prices transmission mechanism

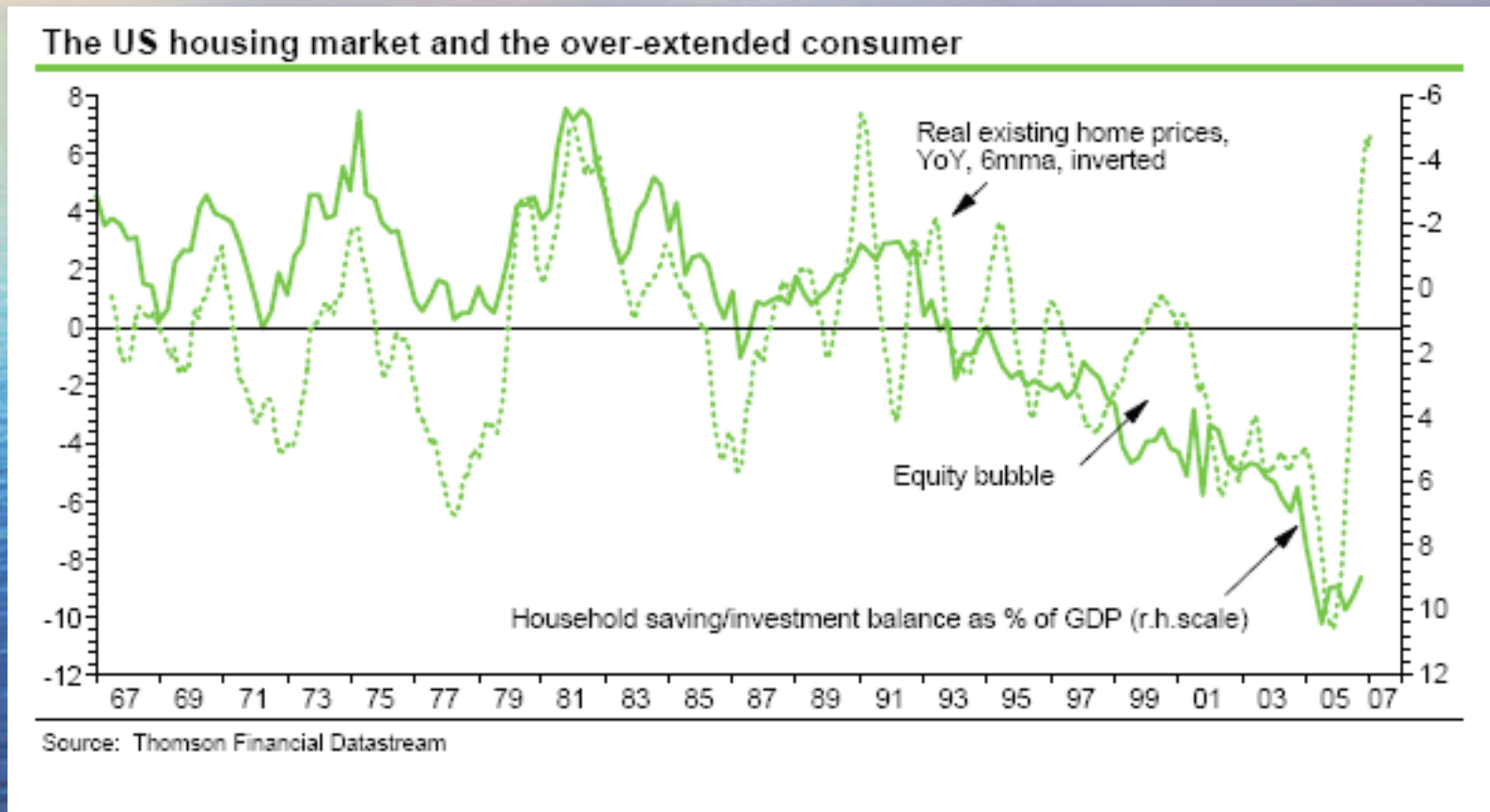
"Some observers worry the recent Federal Reserve policy, by keeping short term rates at very low levels for an extended period, has encouraged investors to 'reach for yield' – that is, to shift their portfolios toward riskier and longer term...Indeed, behaviors of this sort transmit accommodative monetary policy through financial markets to accomplish its intended effect of stimulating demand."

Fed Vice Chairman Don Kohn in "Monetary Policy and Imbalances", April 1, 2004

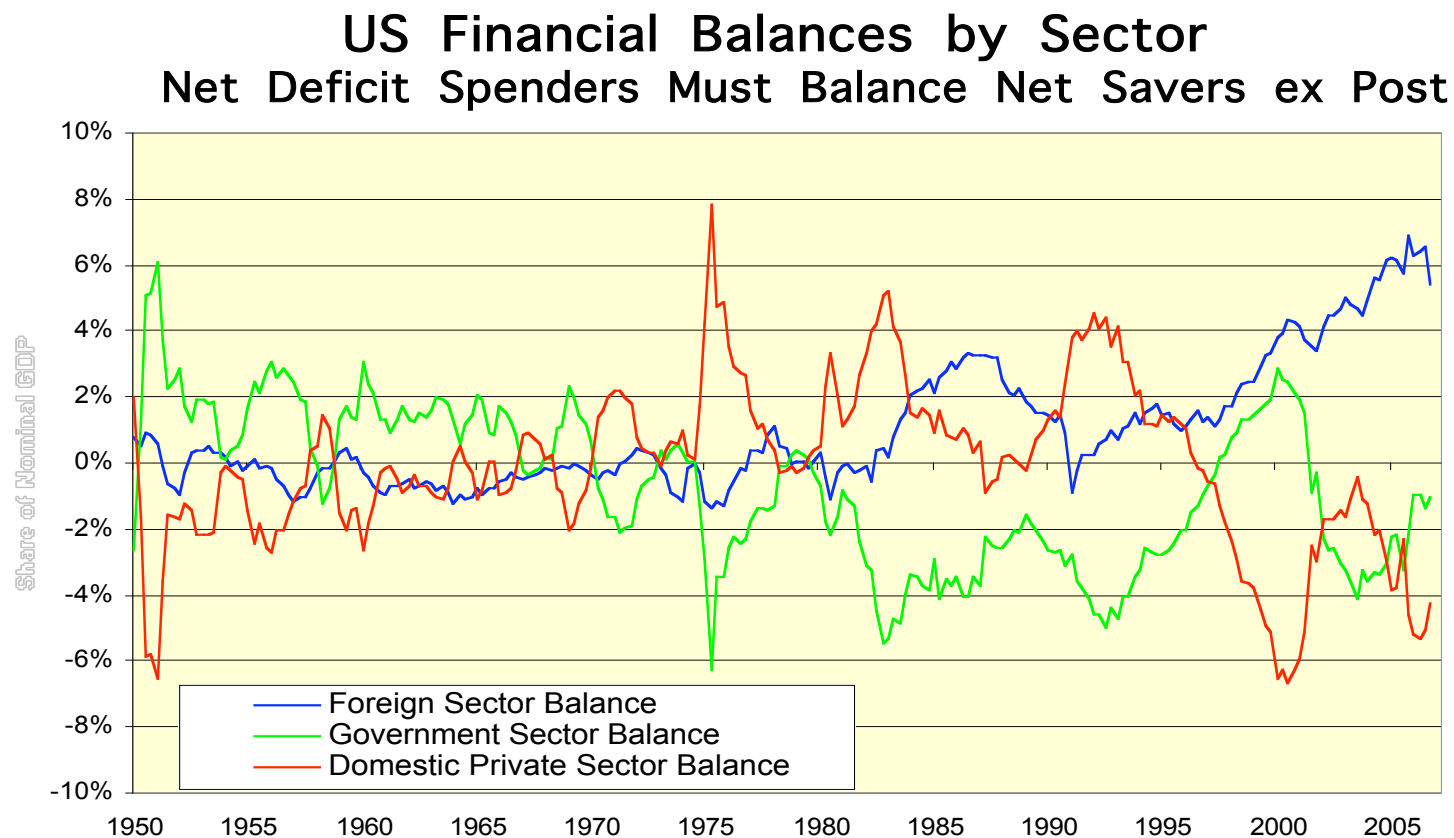
In Summary: Entering a Minsky Moment

- The housing bust is likely to reverse HH deficit spending
- Profit margins will be squeezed as a result, leading to layoffs and further income growth erosion
- Servicing existing private debt loads gets harder
- A delayed “creditor revulsion” may induce a credit crunch episode, further restricting hh deficit spending
- Given the housing stock overbuild and low corporate reinvestment rates, Fed easing may be less effective should a recession unfold
- Rebuilding the public capital stock, encouraging domestic demand led growth abroad are principal exit strategies, but not yet on the agenda

The Key Risk: a rapid reversion of the household financial balance



Policy Objective: Manage the household sector financial rebalancing



Conclusions & Remaining Questions

- Financial innovation, along with repeated moral hazard interventions, appears to have corrupted the private sector credit allocation mechanism
- Signs of financial instability are beginning to ripple out from the subprime mortgage market and more esoteric mortgage derivative products – this is unlikely to be contained
- After this Minsky moment blooms, can financiers (and policymakers) construct another asset bubble to revive economic growth?
- Not obvious how to realign incentives in the NFA