

PERSI

Public Employee Retirement System of Idaho

**Presentation to Economic
Outlook and Revenue
Assessment Committee**

Feb. 7, 2003

INTRODUCTION

- State of Economy
- Ghost of Market Past
- Current Expectations
 - Managers
 - Market
- Dangers
- Impact of War
- Consensus Opinions
- Key Factors
 - Economy
 - 2/3 consumer
 - 1/3 business
 - Impacts bonds
 - Business profits
 - Impacts stocks
- Market Looks Forward
 - Future expectations drives current prices
 - Sources:
 - **Surveys**
 - **Market Itself**

SUMMARY

- **A Mixed but Slowly Growing Economy that is Vulnerable**
 - A Strong Consumer Sector that may be reaching the end of its main support
 - A nervous business sector that has come out of its bunker, but still very timid, and with lower than normal profits and returns
 - All supported by historically low interest and mortgage rates and low inflation
 - **Main Risk:** *Consumer stops spending before business investment kicks in*
- **A “Sisyphus” Market devastated by collapse in business profits, and waiting for real evidence of corporate profitability.**
 - Bond yields at recent historical lows, with dangers for the future
 - Dollar and deficits
 - Stock market slightly undervalued for next ten years, but could collapse to severe undervaluation in the meantime
 - Expectations of medium term tepid recovery with potential sharp spikes
 - **Main Risks:** *Economy collapses or Corporations don't recover pricing power*
- **Expected Iraq War that is currently paralyzing the markets because of uncertainty, but whose longer term impacts expected to be few and indirect**
 - Expectation is for a short and successful war
 - Primary concern : US consumer impact– particularly if major terrorist attack
 - Direct impacts expected to be small
 - Oil Supplies and Inventory seems secure – marginal prices likely to spike
 - Otherwise region has little direct impact – like Africa
 - **Main Risks:** *Quagmire or Oil Disruption*

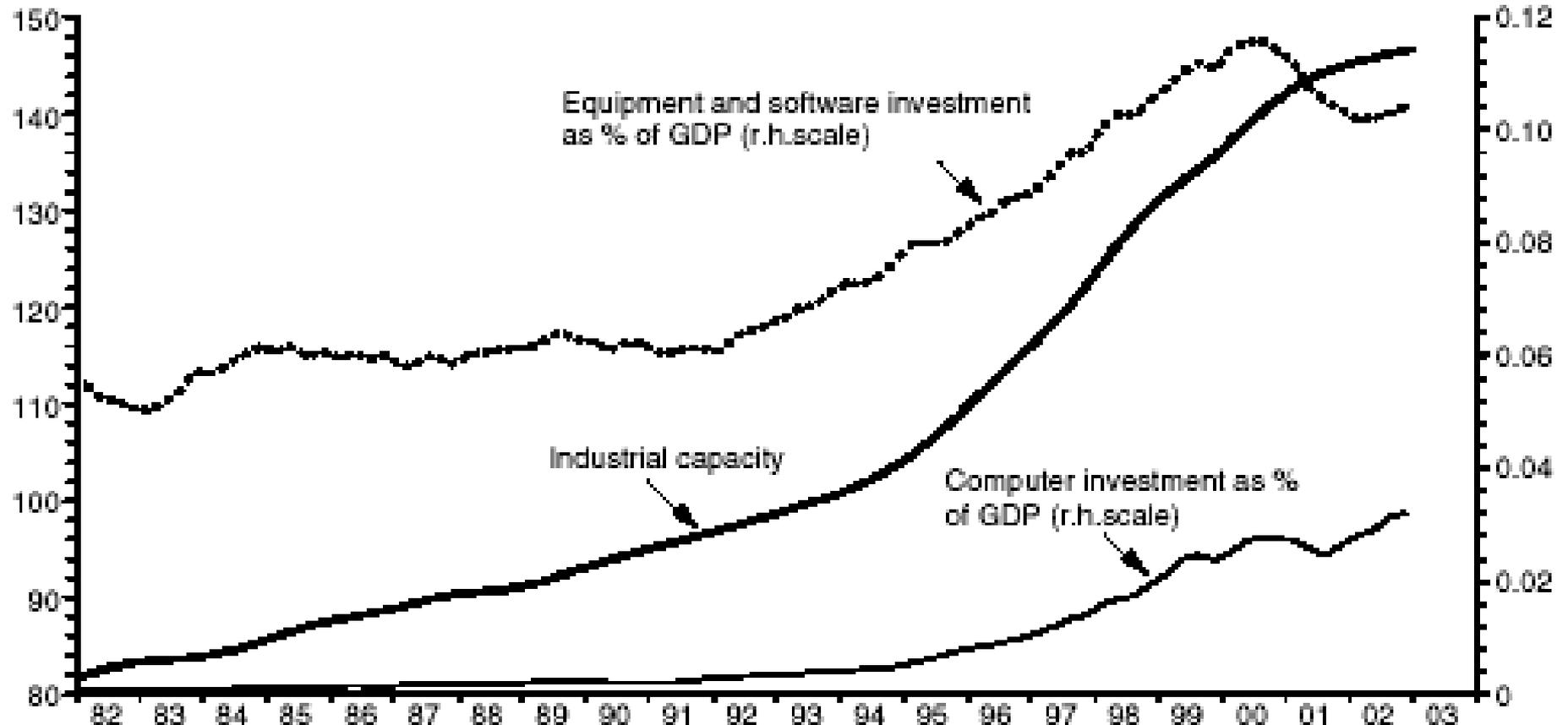
Current Economy and Expectations

- **The recession is over, but a slow recovery**
 - Real GDP 2.4% last year, 2.5% - 3.0% this year, 3.5% - 4.0% next year
- **Unemployment to hover in 5.5% to 6.0% range**
 - 5.8% - 6% last year
- **Business investment weak with slow rebound**
 - Business confidence rising
 - Revenues and returns rebounding, but still weak
- **Inflation tame**
 - 1.2% - 1.5% currently, 2.2% -2.5% expected over next couple of years
- **Consumer still spending, but for how long?**
 - Fueled by mortgage refinancing, but that source drying up
 - Housing strong, expected to drop off only slightly
 - Consumer balance sheets getting better
 - Consumer confidence declining
- **Federal surplus gone and higher state and local deficits**
 - Fed to keep interest rates low
 - Cash rates 1.2%, expected to rise to 1.7% -2.1% by end of year
 - 10 Year rates 4%, expected to rise to 5% - 5.5% range

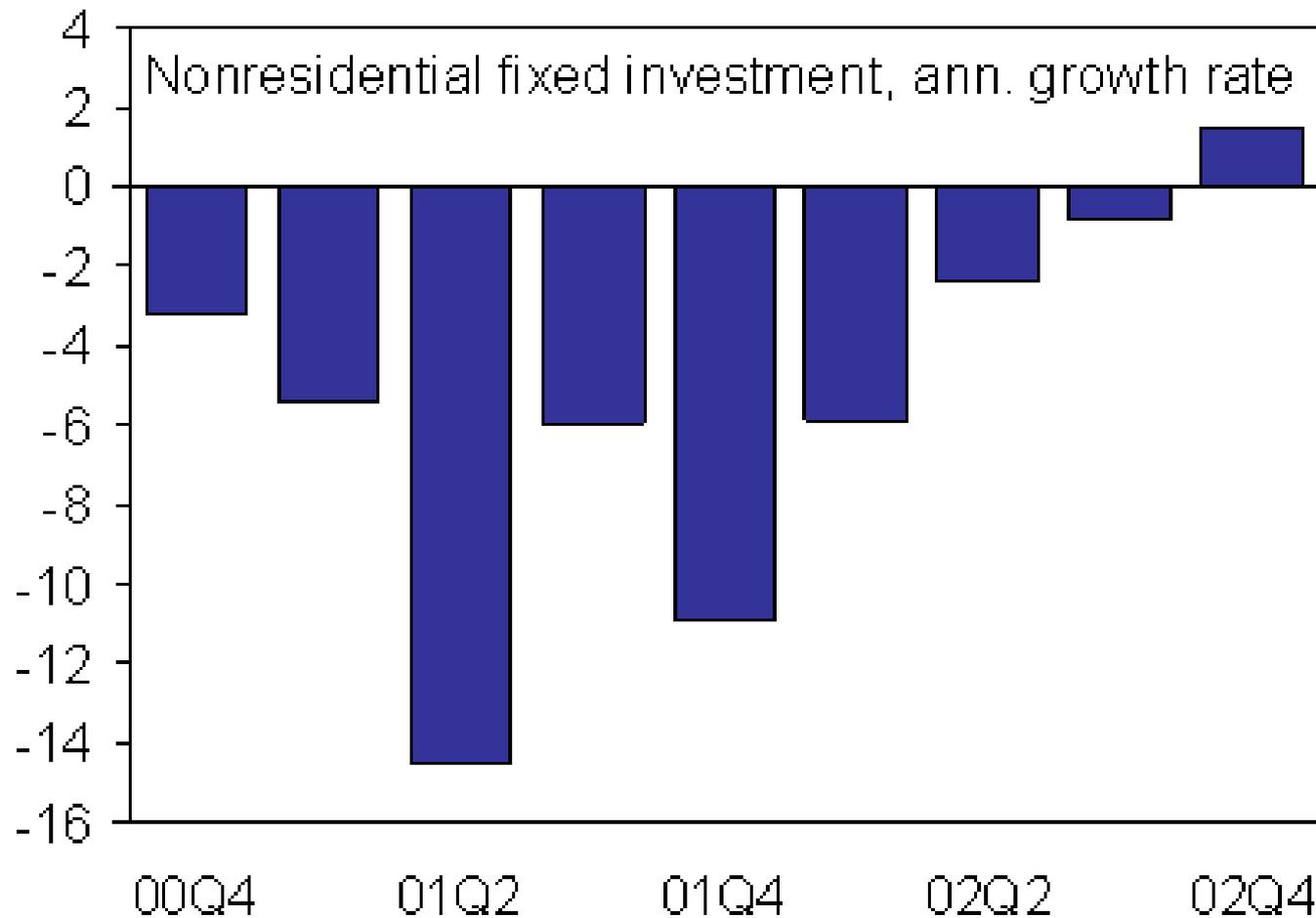
AFTER PROLONGED PERIOD OF HUGE INVESTMENT AND INCREASE IN INDUSTRIAL CAPACITY

[Computers themselves resumed growth
after post Y2K slowdown]

The massive expansion of US productive capacity

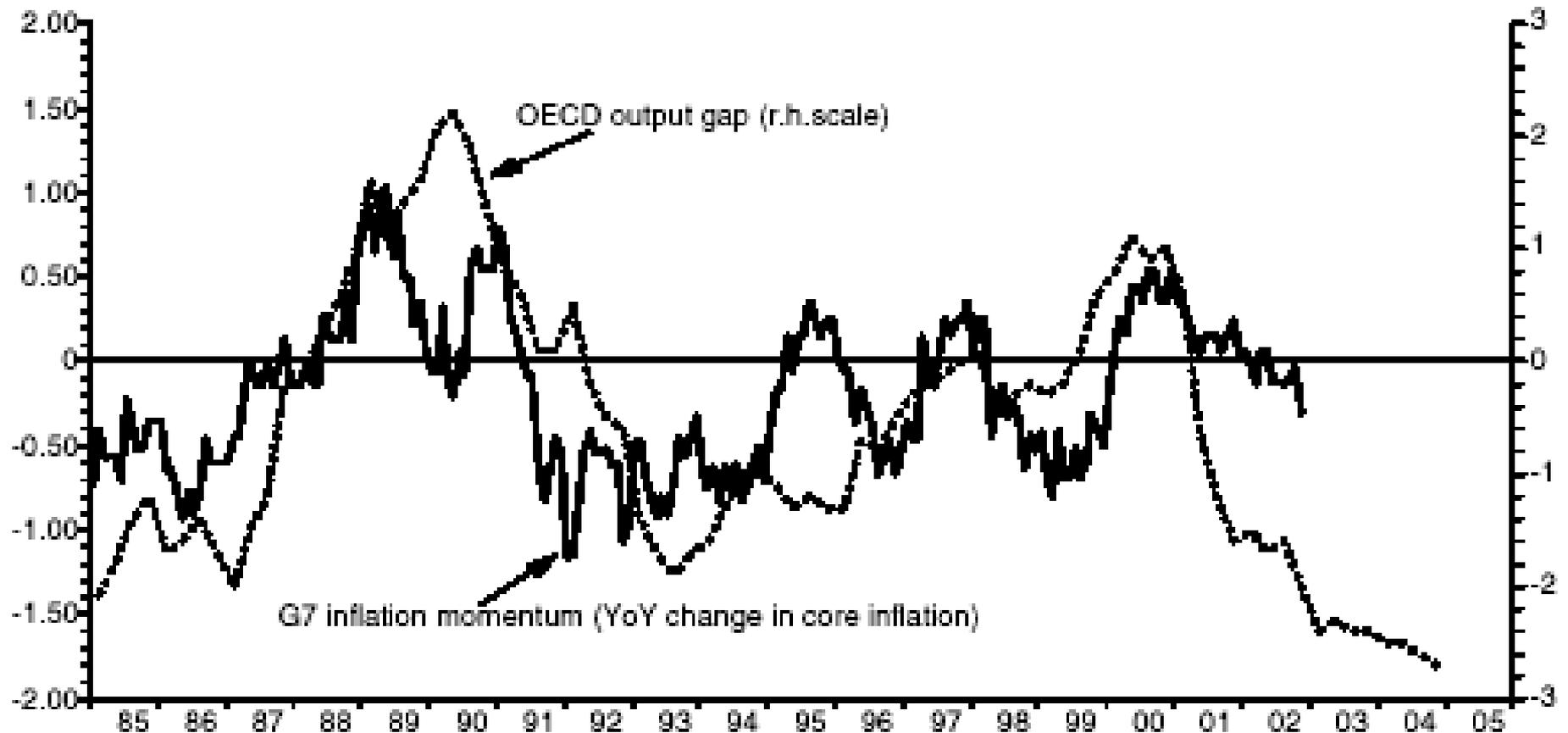


But is Growing Slowly

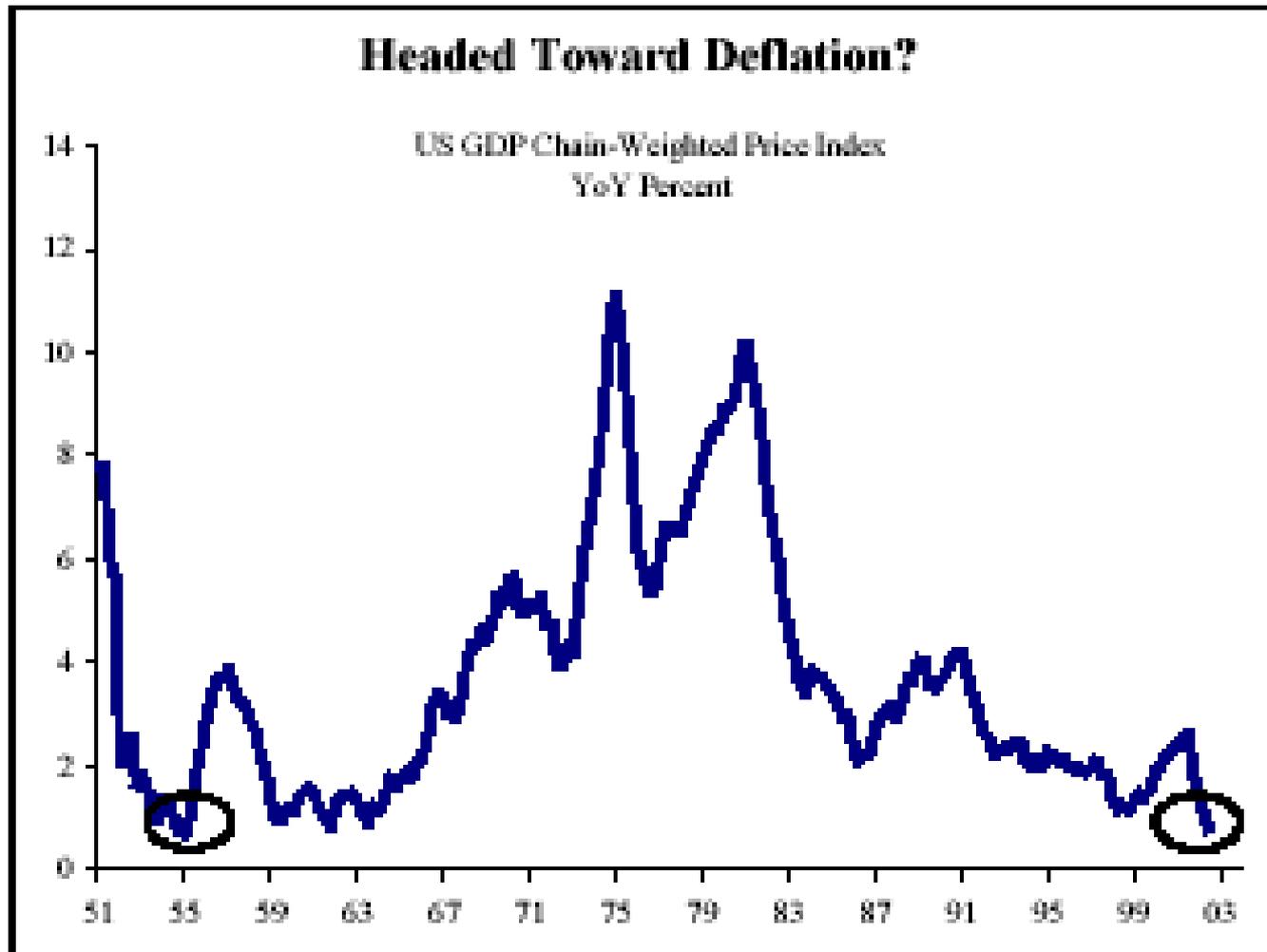


BUT A GLOBAL OUTPUT GAP CONTINUES TO GROW LESS PRESSURE ON INFLATION KEEPS LID ON ANY ROBUST CAPITAL SPENDING

The global output gap and pricing power

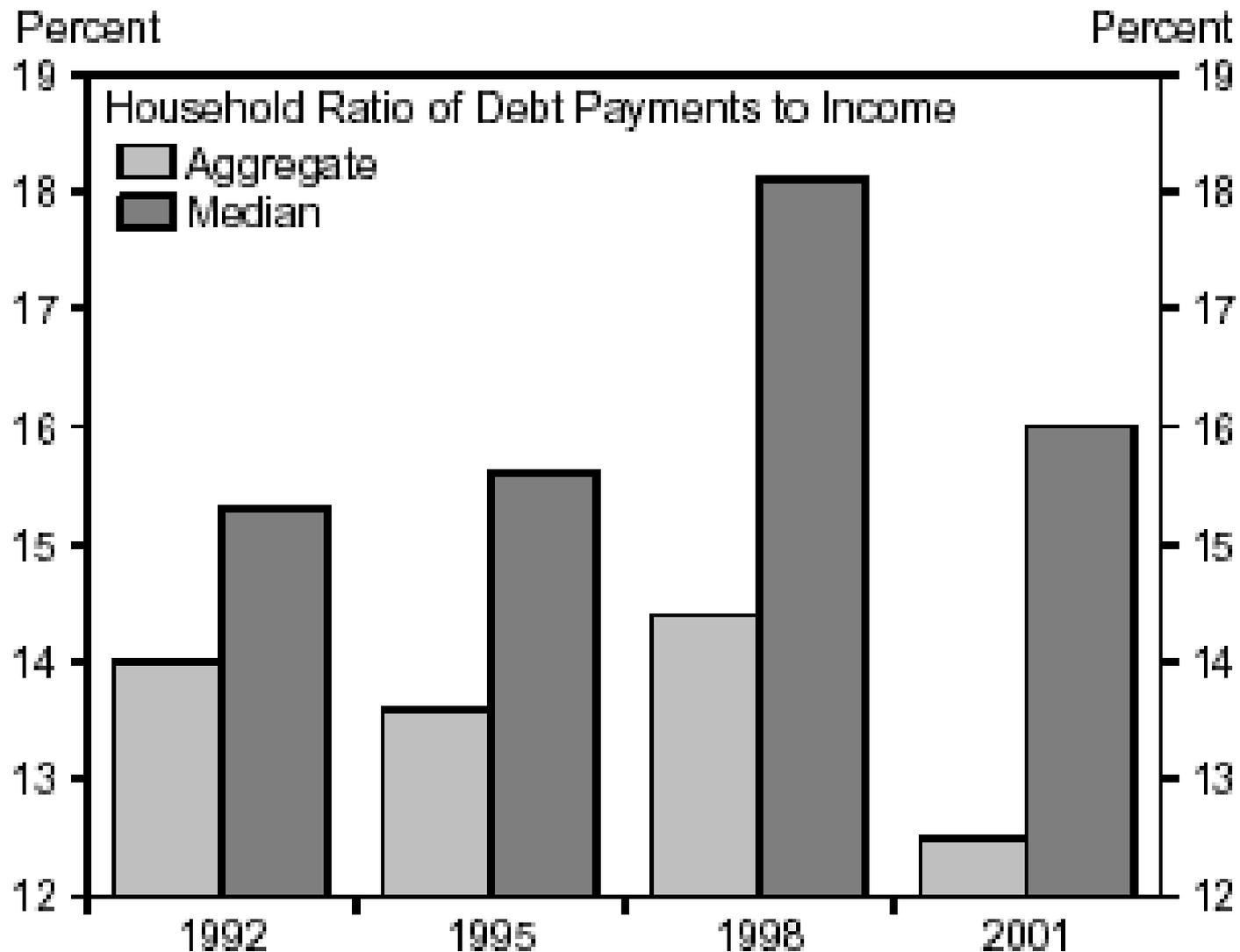


INFLATION AT A 50 YEAR LOW, AND COULD BE HEADED LOWER



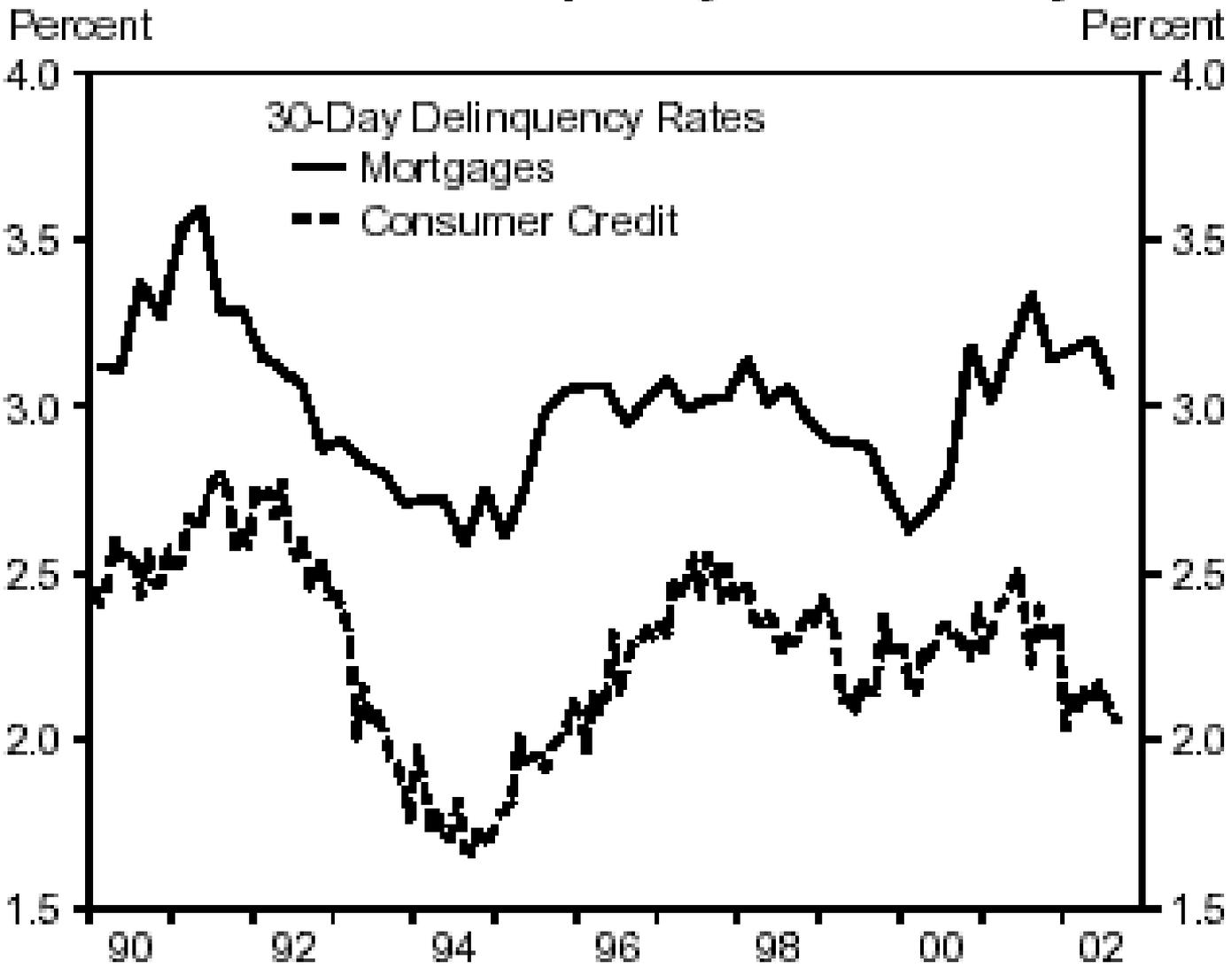
Source: Bureau of Economic Analysis

Survey of Consumer Finances Finds a Decline in Debt Service



Source: Federal Reserve Board.

DLEINQUENCY RATES STEADY AND BENIGN

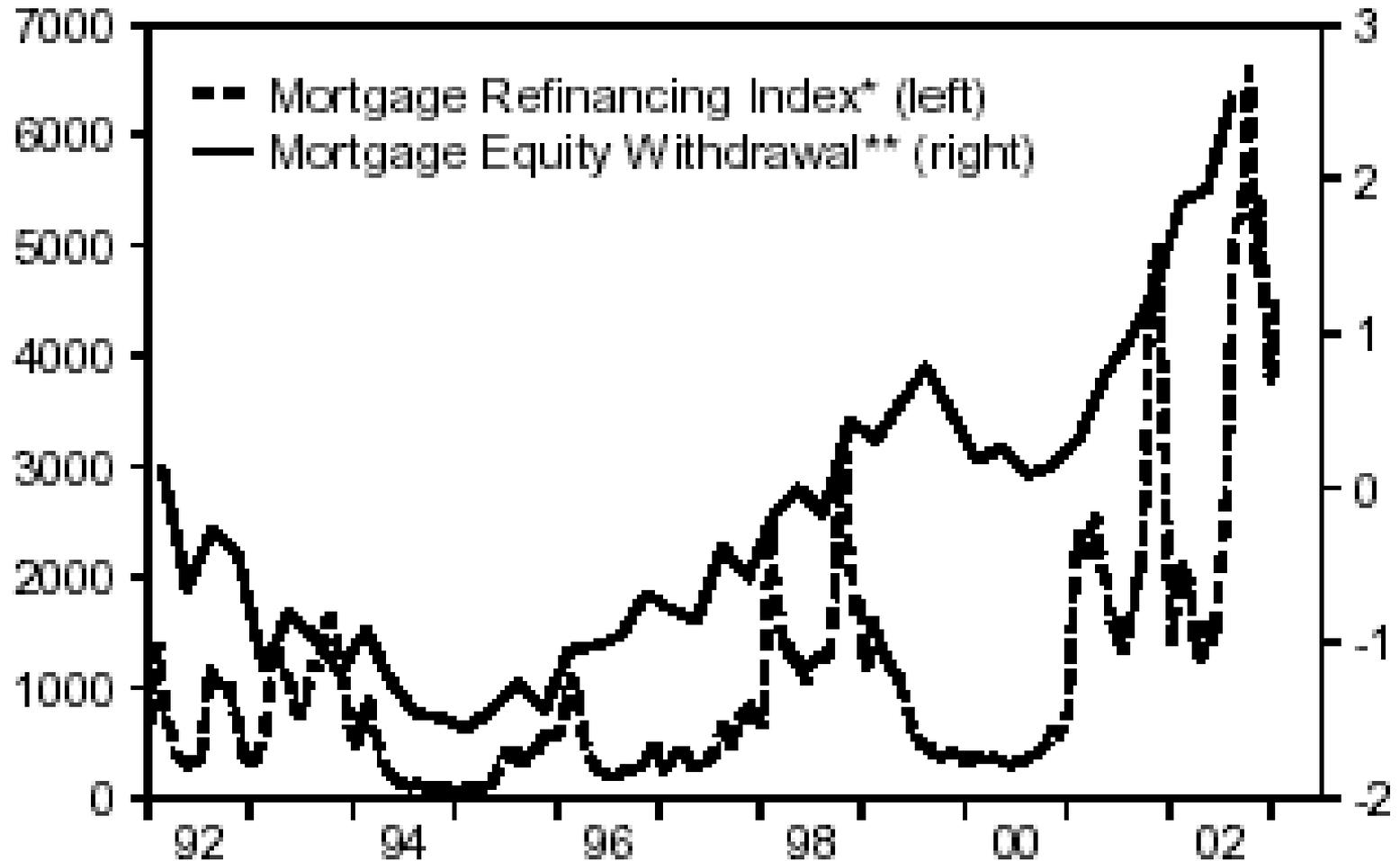


Source: Mortgage Bankers Association.
American Bankers Association.

MORTGAGE REFINANCING SUPPORT DECLINING

Index, March 1990=100

Percent of disposable income



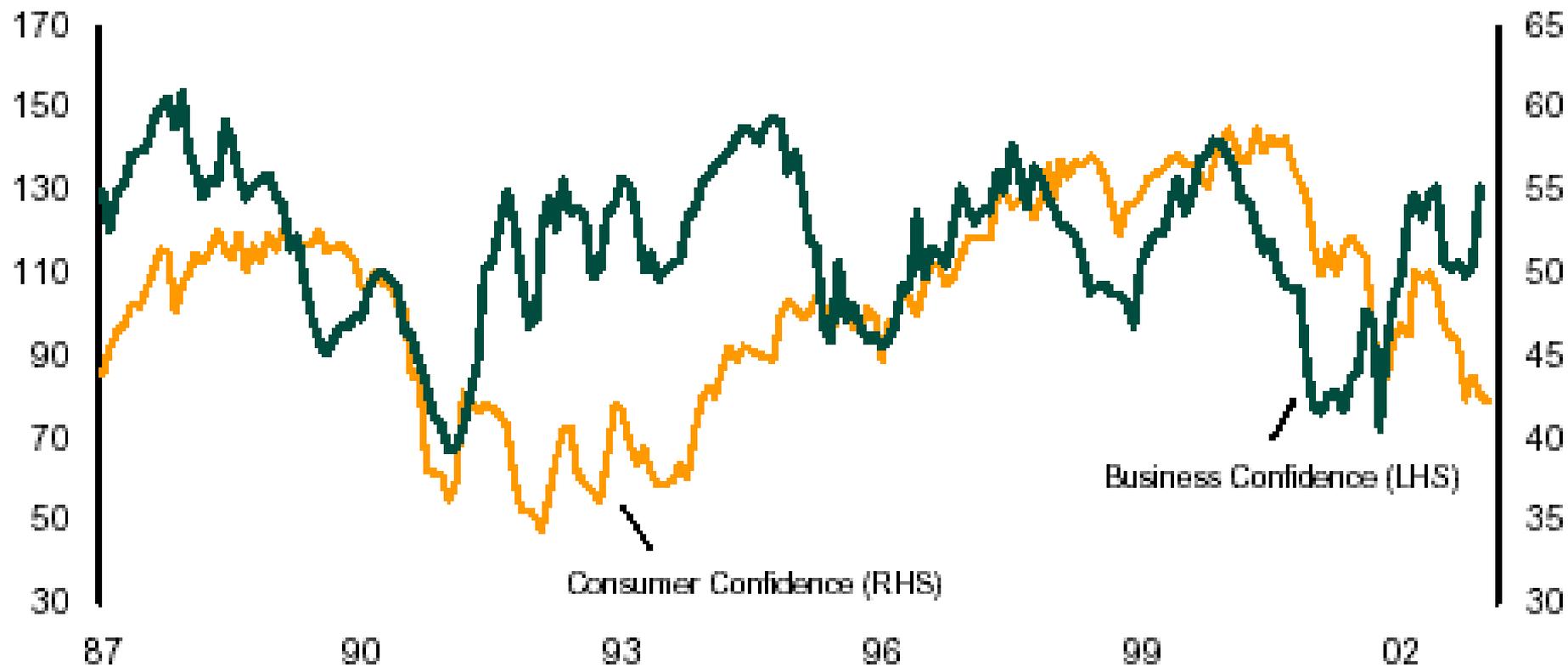
* Data plotted as four-week moving average.

** Mortgage borrowing less residential investment.

Source: Federal Reserve Board.

Mortgage Bankers Association.

BUSINESS CONFIDENCE VS CONSUMER CONFIDENCE



Source: ISM, Conference Board

OPPOSITE RECENT TRENDS

Continental Europe

US

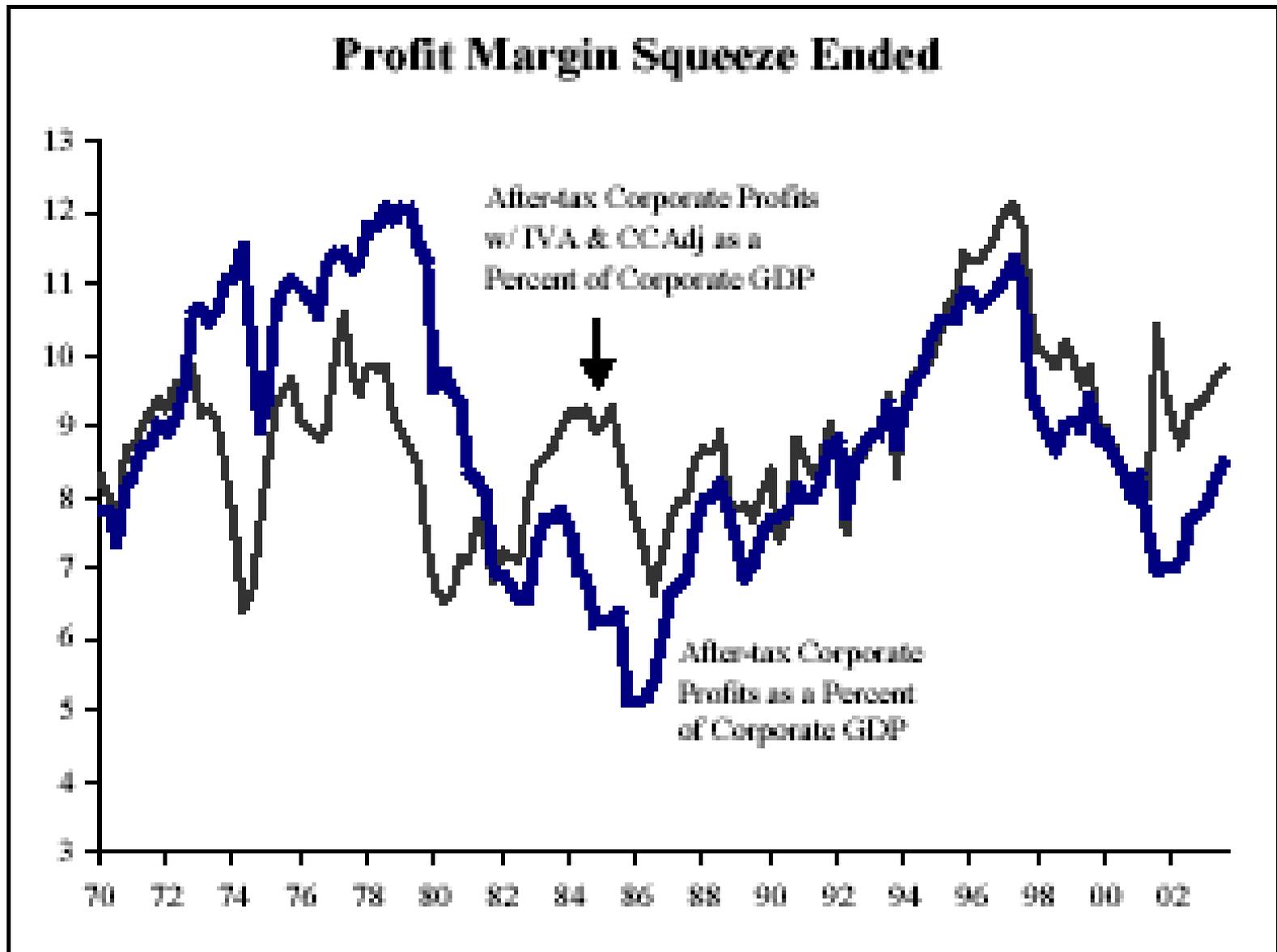
Sector

Sector	Continental Europe	US
Automobiles & Components	2.8	-3.5
Banks	4.8	4.0
Capital Goods	1.8	3.4
Commercial Services & Supplies	5.5	9.2
Consumer Durables & Apparel	2.4	7.2
Diversified Financials	8.1	5.3
Energy	-1.1	-0.5
Food & Drug Retailing	3.4	6.8
Food Beverage & Tobacco	3.2	-1.7
Health Care Equipment & Services	6.7	10.6
Hotels Restaurants & Leisure	4.1	5.3
Household & Personal Products	6.2	2.2
Insurance	2.5	11.2
Materials	4.1	5.0
Media	-13.6	9.9
Pharmaceuticals & Biotechnology	8.9	10.0
Real Estate	14.8	2.1
Retailing	7.2	8.6
Software & Services	3.7	4.5
Technology Hardware & Equipment	-1.8	4.5
Telecommunication Services	6.0	0.0
Transportation	6.2	4.6
Utilities	6.0	-0.8
Total Market	2.9	4.6
Total Market ex fin	2.7	4.2

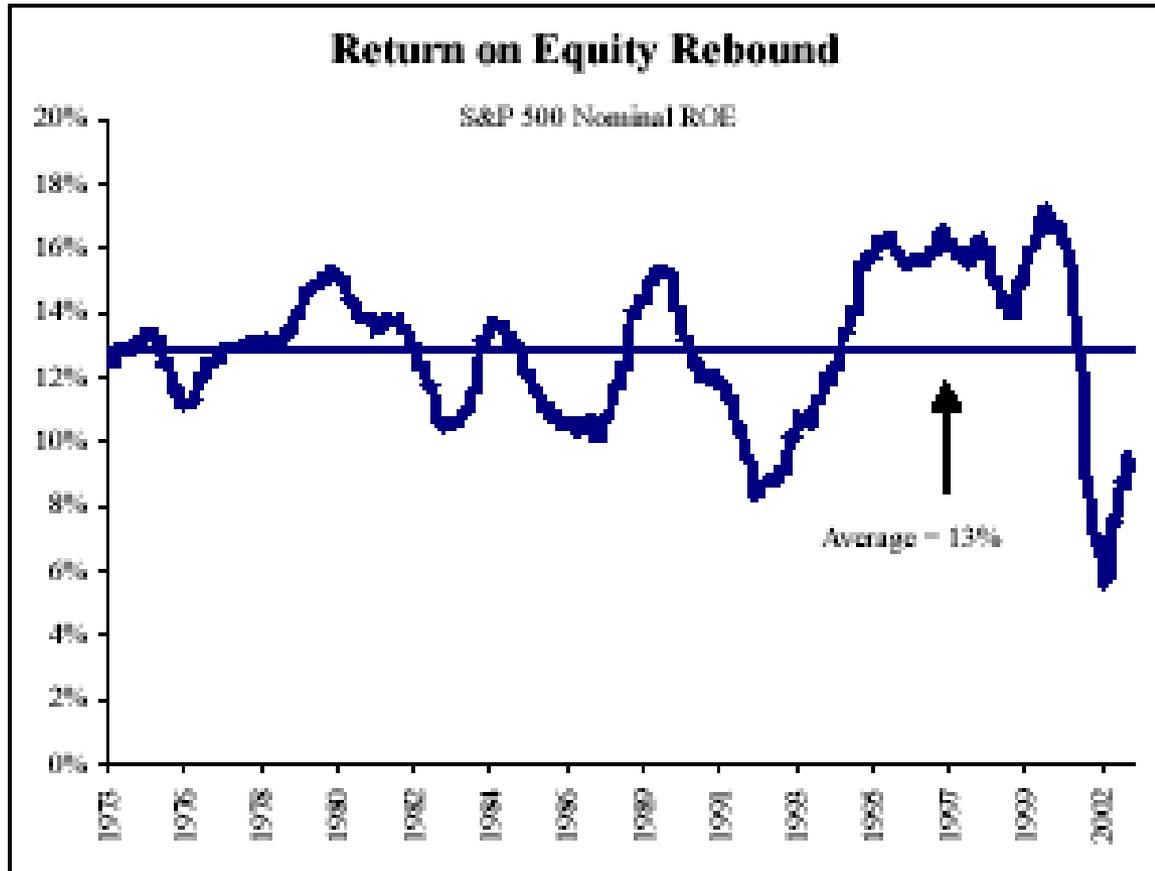
Source: I/B/E/S international, CSFB research

CONSENSUS REVENUE GROWTH -- 2003

CORPORATE PROFIT SLIDE APPEARS TO HAVE ENDED



RETURN ON EQUITY IS REBOUNDED STILL FAR BELOW “NORMAL” LEVELS



Source: Morgan Stanley Research

AS IS RETURN ON INVESTMENT

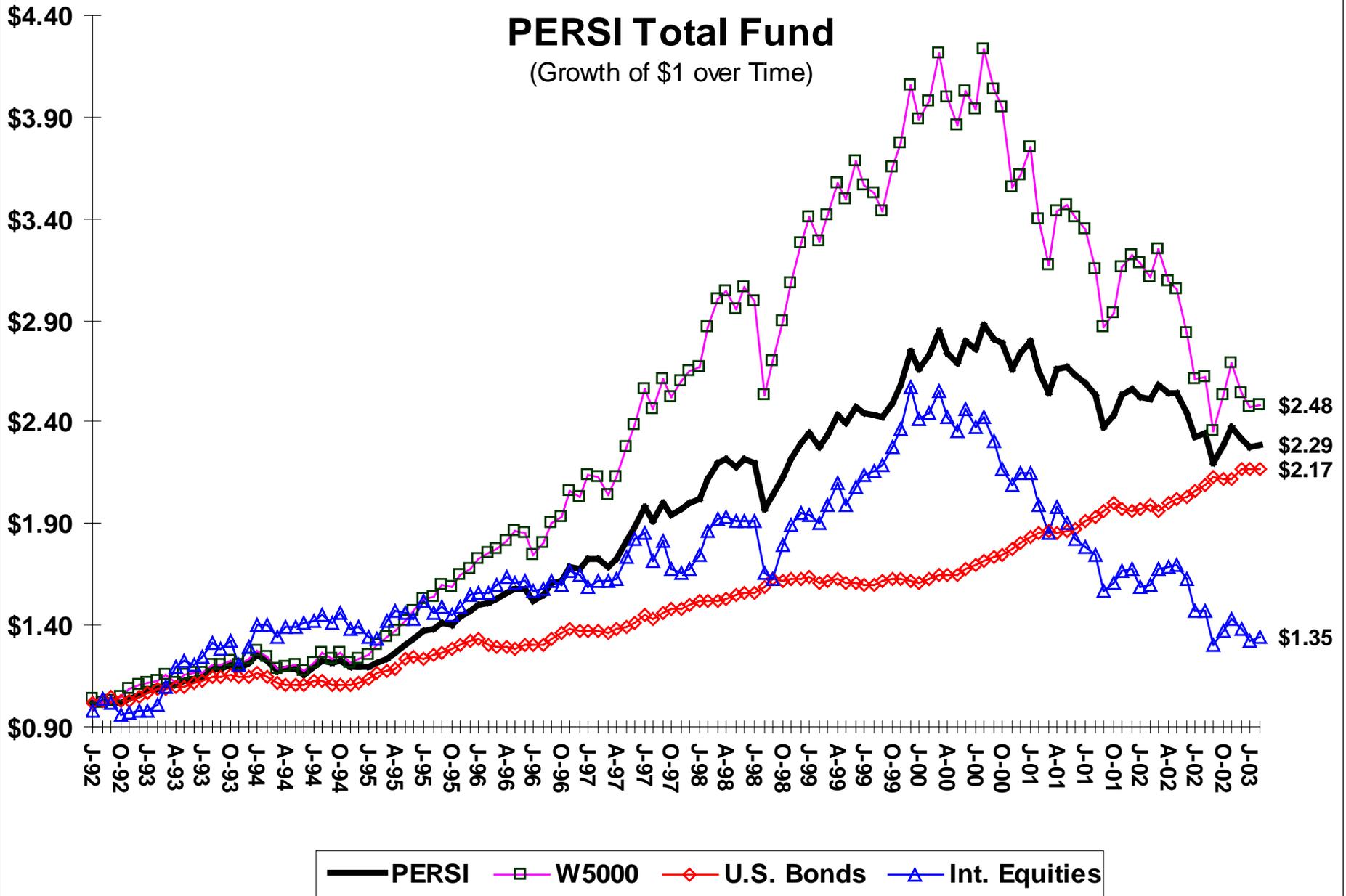
Current Forecasts	Return on Invested Capital*					
	US	Eur ex UK	UK	Japan	Asia ex Jap	World
BASIC INDUSTRIES	5.1%	8.5%	9.2%	0.7%	6.2%	5.5%
CAPITAL GOODS	4.0%	3.0%	-0.3%	0.8%	4.1%	2.9%
CONSUMER CYCLICALS	3.1%	1.6%	2.9%	2.5%	2.7%	2.6%
CONSUMER STABLES	13.6%	8.5%	10.0%	3.4%	8.2%	10.2%
ENERGY	10.1%	13.2%	11.2%	2.2%	7.4%	11.1%
FINANCIALS ^{1,3}	11.8%	9.4%	9.0%	-5.0%	8.6%	9.2%
HEALTH CARE	17.2%	9.8%	28.9%	8.1%	5.8%	14.7%
TECHNOLOGY ⁴	0.0%	-7.0%	-21.6%	-2.9%	0.4%	-4.8%
UTILITIES	6.4%	5.9%	2.3%	3.2%	6.4%	5.2%
TELECOMS	2.8%	-1.4%	-8.7%	-1.3%	11.1%	-0.5%
MARKET ex Financials	4.7%	3.9%	2.6%	1.5%	5.2%	3.6%

10 Year Averages	Return on Invested Capital					
	US	Eur ex UK	UK	Japan	Asia ex Jap	World
BASIC INDUSTRIES	7.1%	7.8%	9.0%	1.4%	5.9%	5.5%
CAPITAL GOODS	7.7%	8.5%	11.7%	2.2%	7.8%	6.0%
CONSUMER CYCLICALS	6.7%	5.6%	8.4%	2.1%	4.9%	4.8%
CONSUMER STABLES	13.1%	9.6%	13.0%	3.2%	7.9%	10.4%
ENERGY	9.2%	8.6%	7.5%	2.0%	6.3%	8.0%
FINANCIALS & INSURANCE	16.5%	11.5%	14.7%	-0.6%	11.3%	12.1%
HEALTH CARE	16.3%	11.1%	23.2%	6.7%	6.1%	13.6%
TECHNOLOGY	9.9%	10.0%	14.8%	2.1%	3.7%	7.1%
UTILITIES	6.5%	7.8%	13.2%	1.2%	11.4%	5.3%
TELECOMS	7.5%	7.8%	10.1%	3.5%	21.9%	7.7%
MARKET ex Financials	8.5%	7.7%	9.5%	2.1%	7.0%	6.5%

CUMULATIVE RETURN VS. BENCHMARKS

PERSI Total Fund

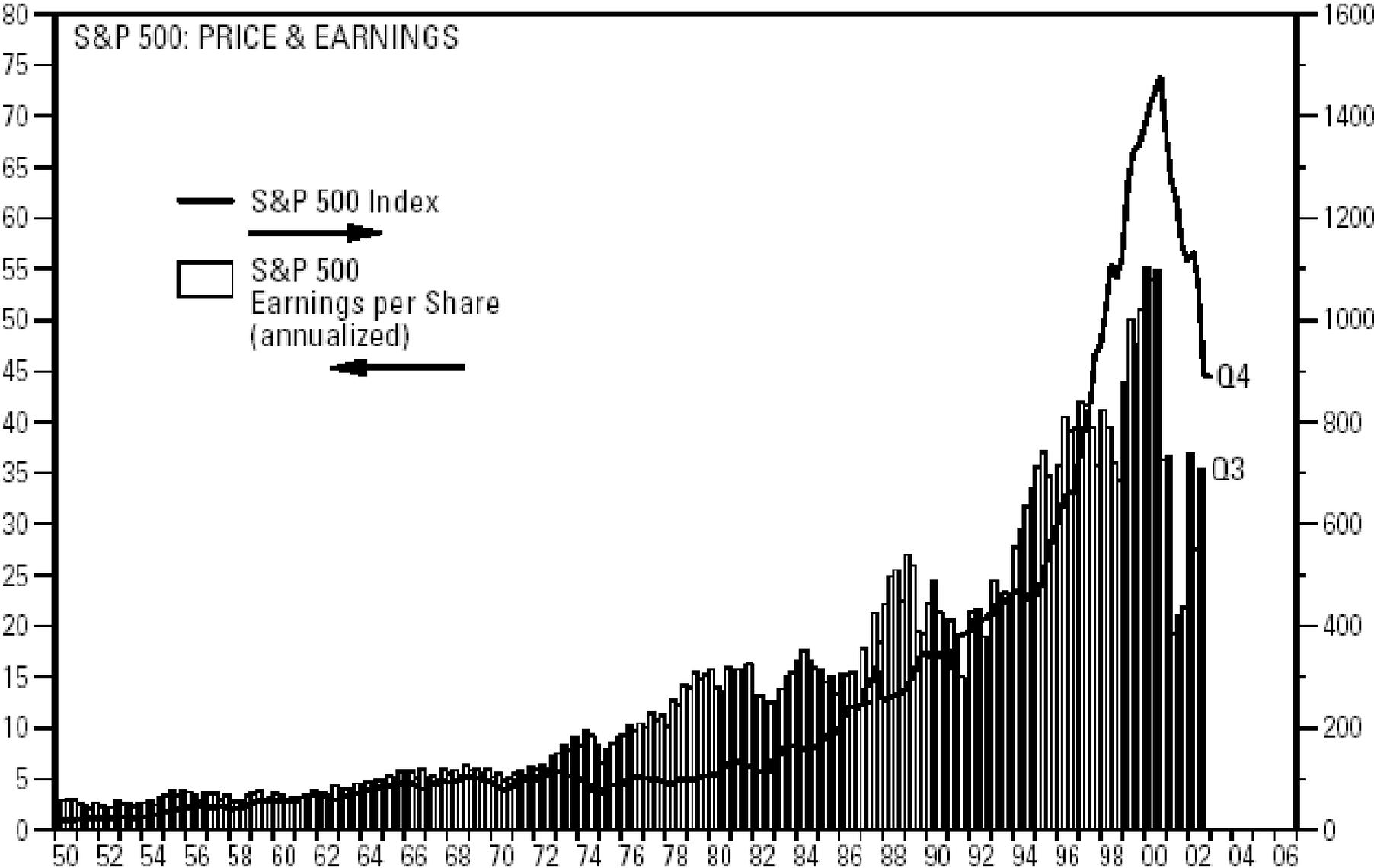
(Growth of \$1 over Time)



Longest Equity Bear Market Since 1930's

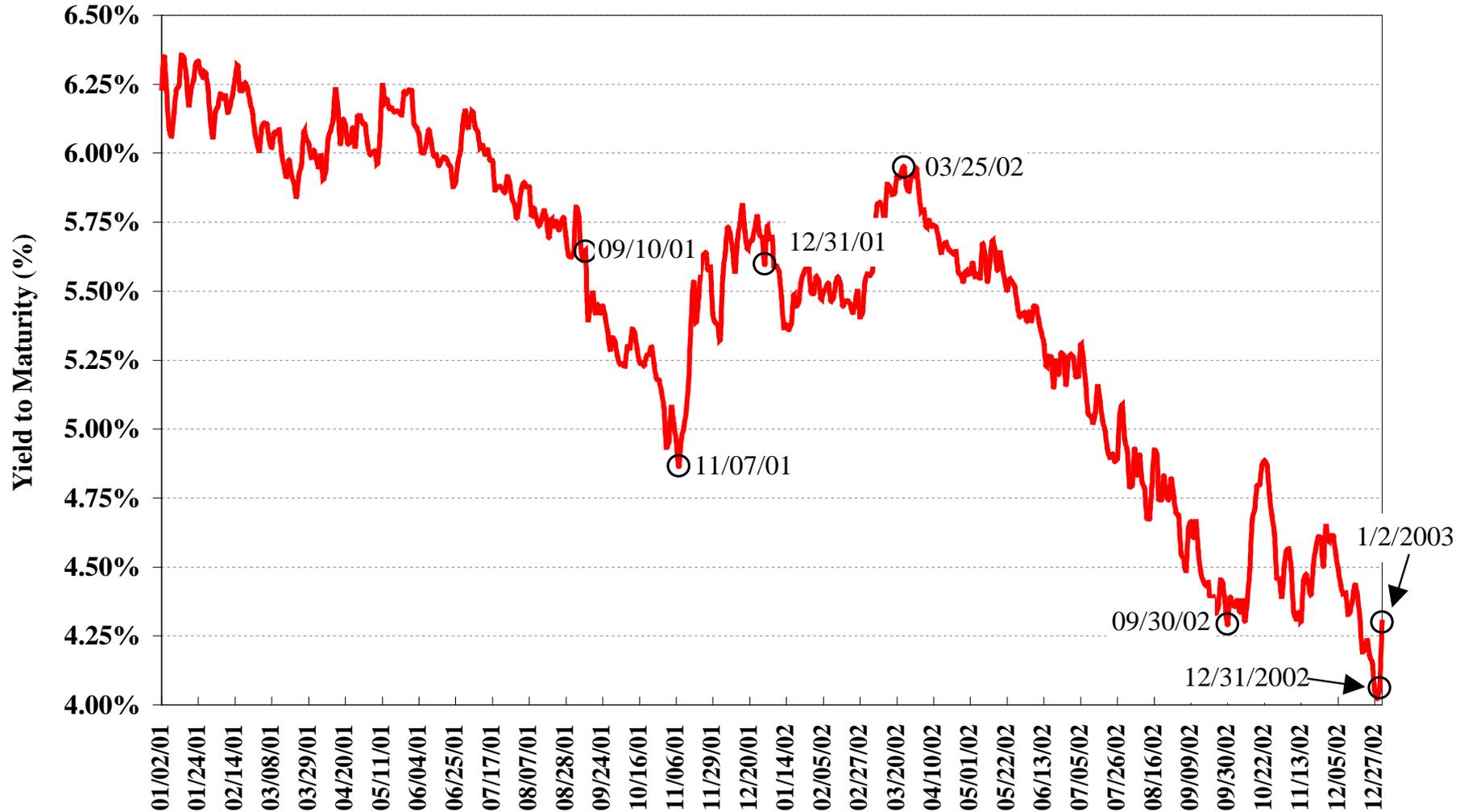
	<u>2000 Returns</u>	<u>2001 Returns</u>	<u>2002 Returns</u>
Russell 3000	-7.46	-11.46	-21.54
S&P Super Composite 1500	-6.98	-10.64	-21.31
Russell 1000	-7.79	-12.45	-21.65
S&P 500	-9.10	-11.88	-22.10
Russell 2000	-3.02	2.49	-20.48
S&P 600 Small Cap	11.80	6.54	-14.63
EAFE (\$US)	-14.17	-21.44	-15.94
LB Aggregate	11.63	8.43	10.25
SB Non-US Bonds	-2.63	-3.54	21.99

STOCK MARKET DROP DUE TO EARNINGS COLLAPSE



US Fixed Income "Bubble"?

Lehman Aggregate Index - Daily Yield to Worst from 1/1/01 to 12/31/02



DESPITE LAST THREE YEARS, LAST TEN YEARS HAVE BEEN “NORMAL”

BONDS 1%-3% ABOVE CASH
STOCKS 3%-5% ABOVE CASH

	5 Years	10 Years	20 Years	30 Years	40 Years
Cash	4.49	4.61	5.94	6.96	6.36
Bonds	7.44	6.91	8.74	8.51	7.52
Stock	-0.59	9.34	12.71	10.68	10.49

CURRENT ECONOMY

	Growth	Range - Low	Average -	Range - high
Current GDP (QoQ annualized)	0.7%	-7.9% (1980)	3.4%	16.3% (1978)
	% GDP			
Corporate Profits	7.3%	6.0% (1982)	8.7%	12.1% (1966)
After tax Profits	4.3%	3.1% (1986)	5.6%	7.6% (1978)
S&P Earnings (trailing Yr)	2.3%			
S&P Earnings (current qtr)	3.9%			
Wages and salaries	40.1%	36.6% (1993)	40.1%	42.9% (1959)

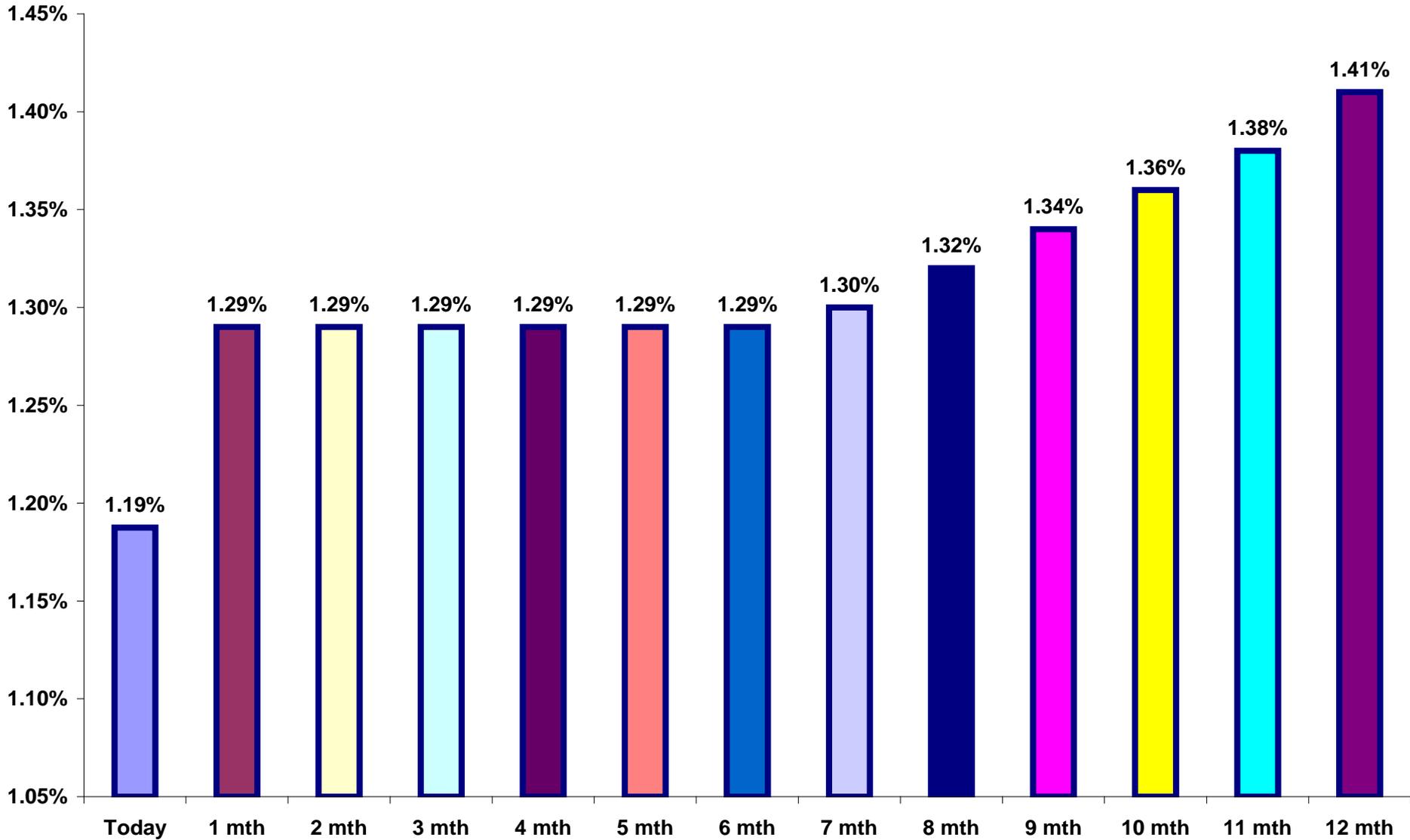
CURRENT STOCKS

WACC	7.0%	ROE on Book	18.3%
WAC Equity	9.7%	Current P/E	17.0
WAC Debt	2.7%	Dividend Yield	1.8%
Debt to Capital	25%	Share Repurchase	0.8%
Price/EBITDA	7.4	Payout ratio	32.2%
Price/Book	2.6	Trailing PE	30.1

2003 PERSI Manager Expectations

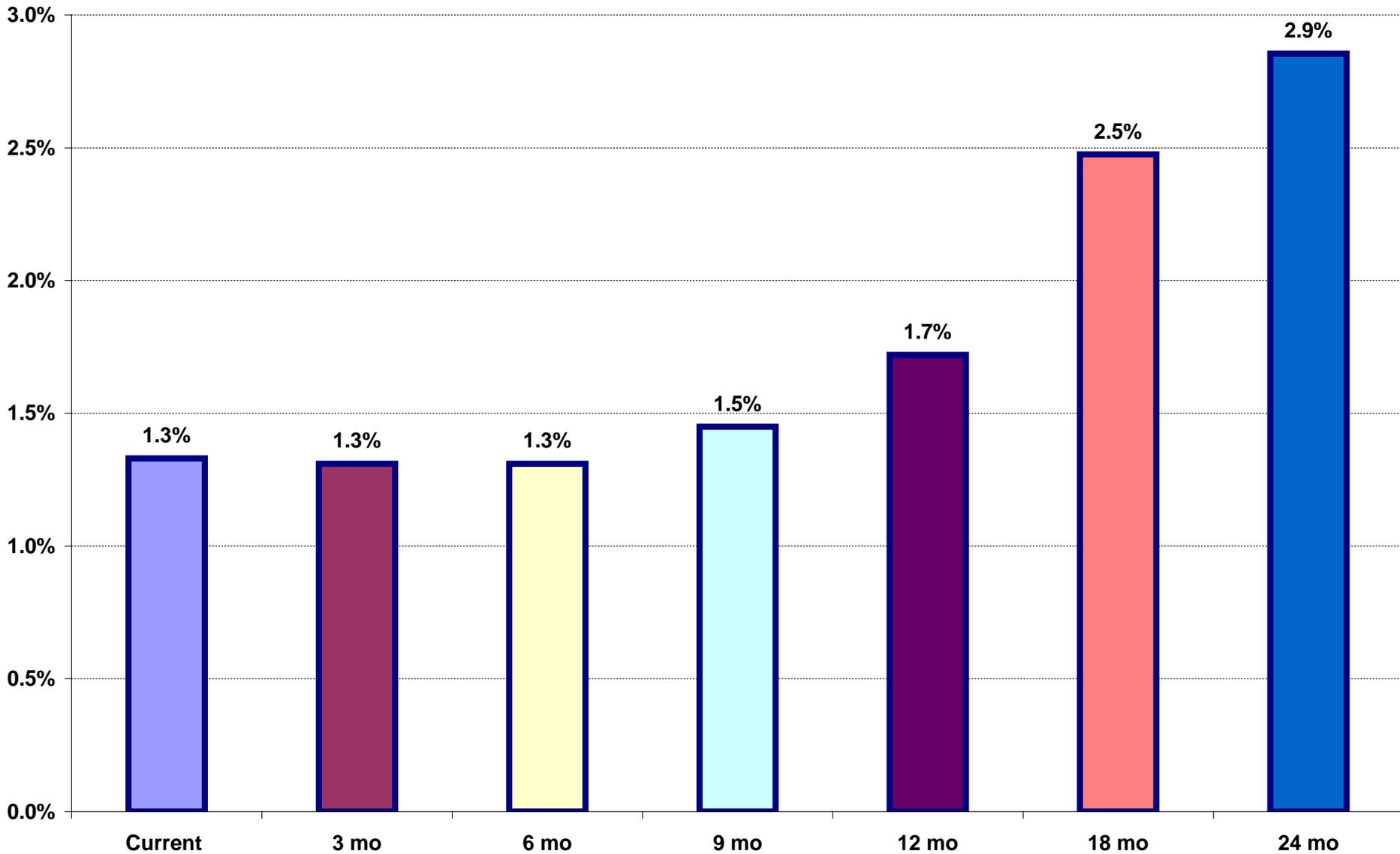
- **Economic recovery will continue at moderate pace.**
- **Inflation will remain low, but little risk of deflation.**
- **Consumer spending will slow but continue, in line with disposable income.**
- **Federal Reserve will remain stimulative, but will ultimately shift to moderately tightening policy.**
- **Market Recovery will be modest over time, with potential sharp spikes**
- **Tech and Telecom will not drive recovery**
- **Emerging Markets will be strong, Japan weak, and Europe moderate**
- **Corporate spreads will narrow**
- **US Dollar will exhibit moderate weakness against Euro and Pound**
- **US Productivity will continue at 2%-2.5% or above**

FED FUNDS FUTURES



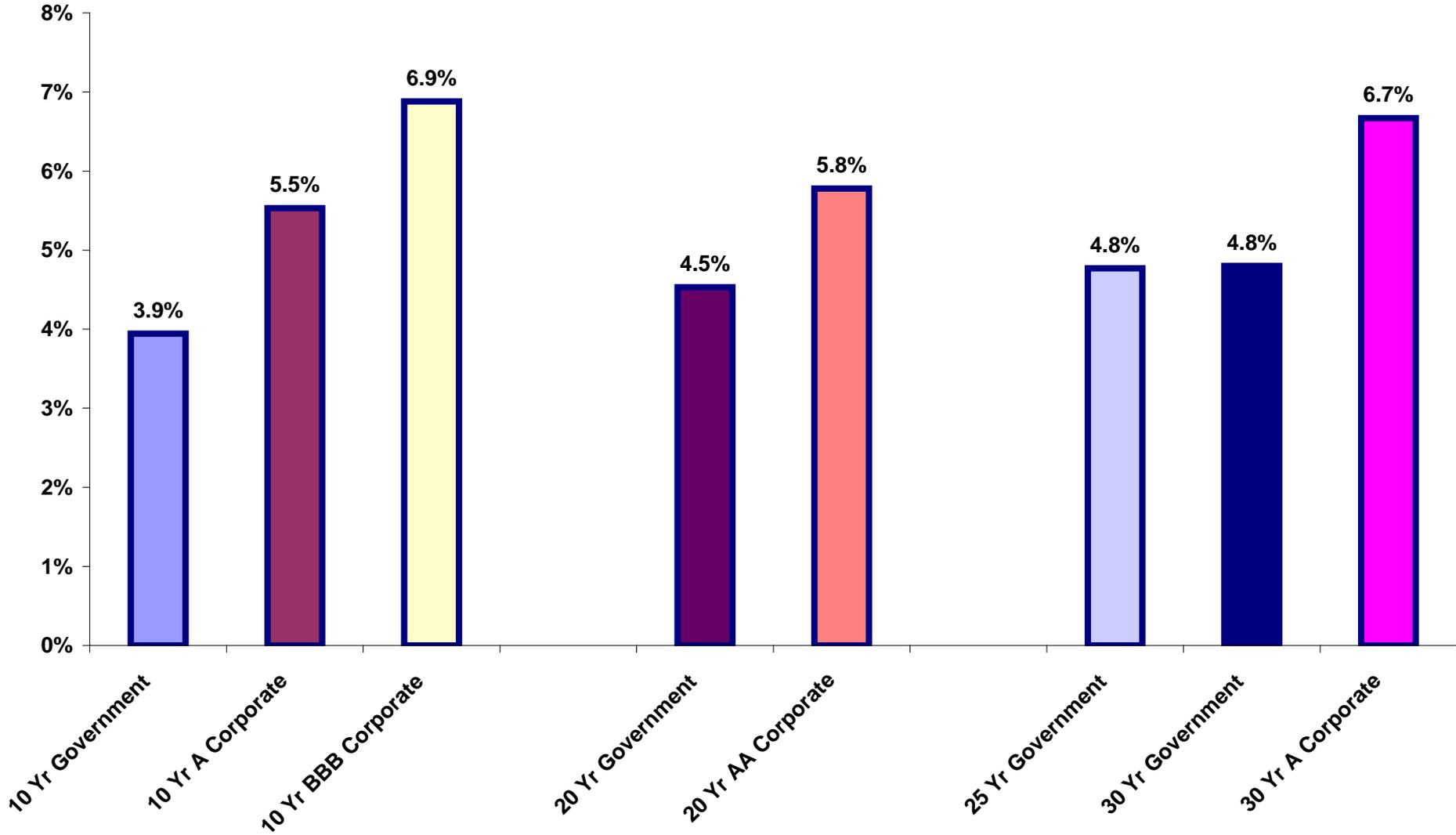
2/5/2003

90 DAY EURO\$ FUTURES



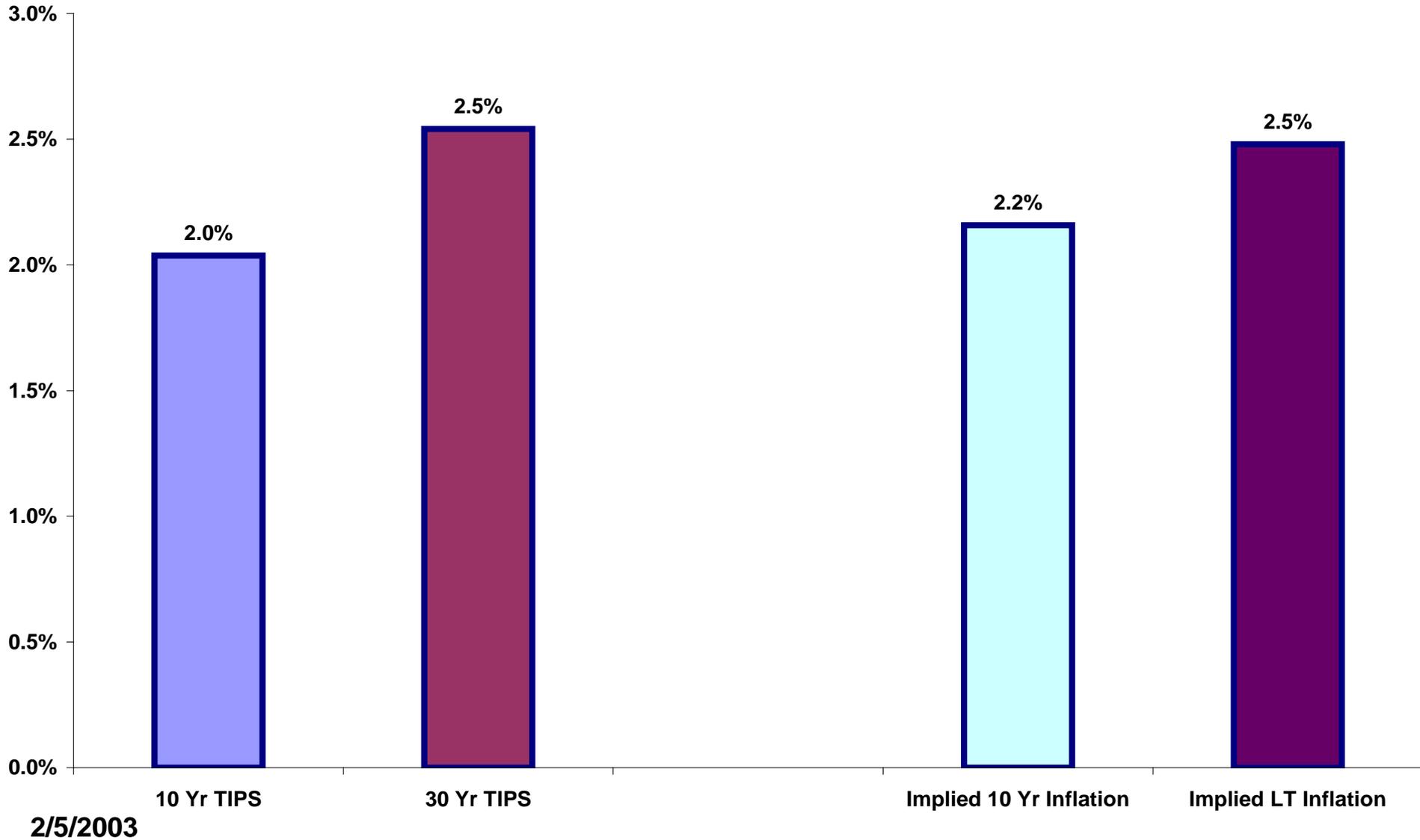
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Fixed Income Yields



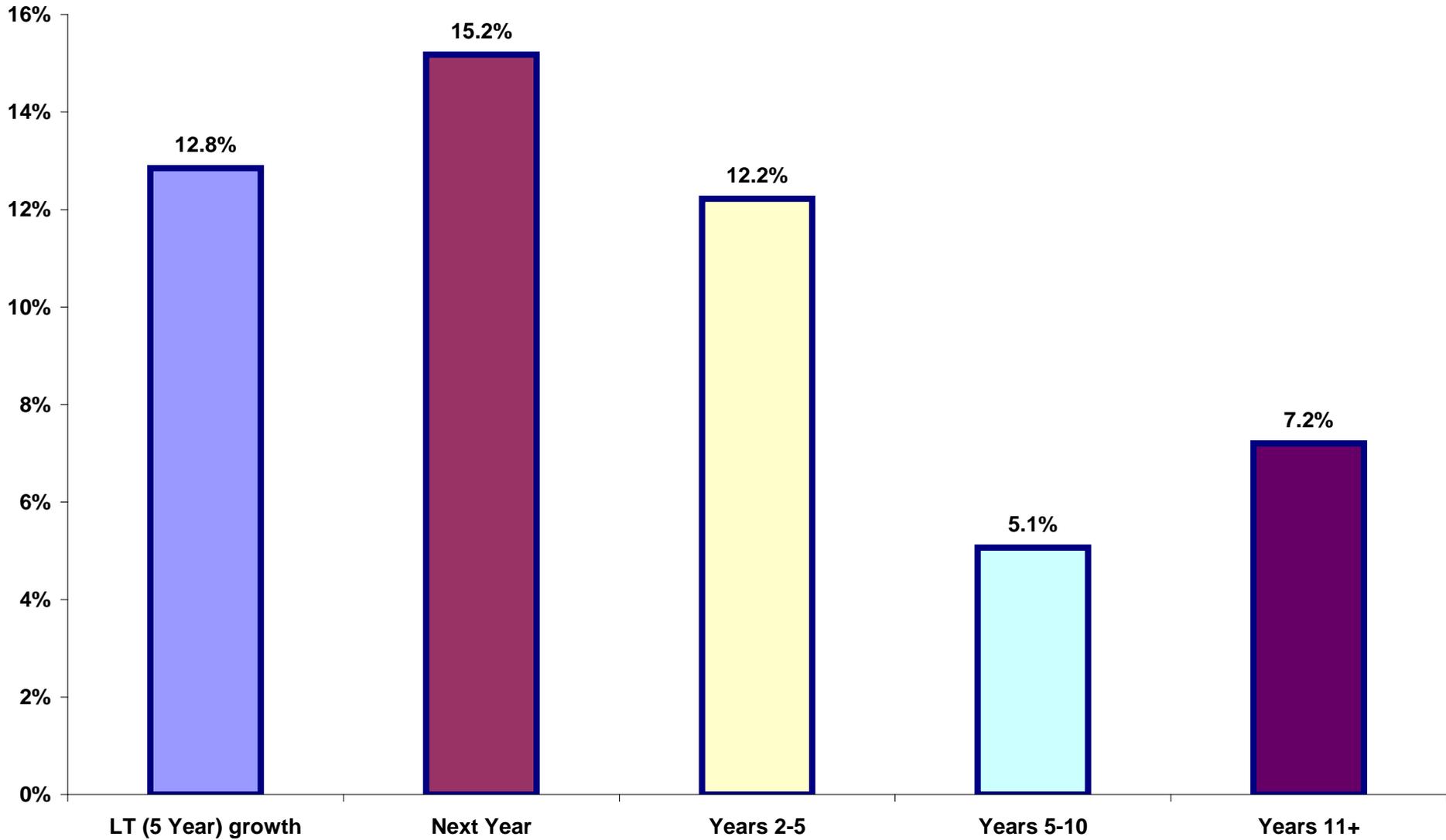
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Real Yields and Implied Inflation



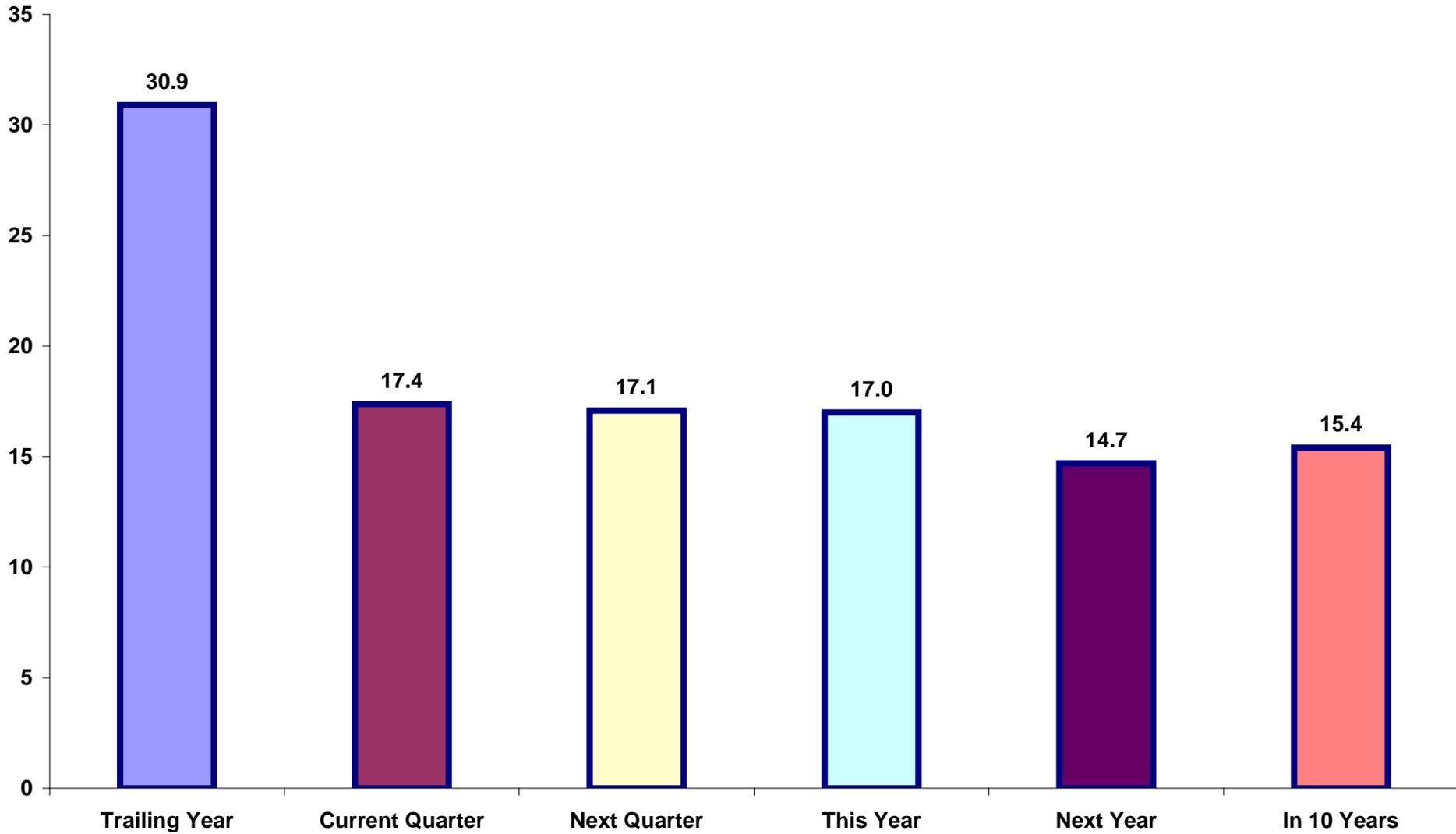
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Estimated S&P 500 Earnings Growth



2/5/2003

EXPECTED PE RATIOS



2/5/2003

Inflation and P/E Ratios

<u>Inflation</u>	<u>Average S&P 500 P/E</u>
Less than 2.5%	18.1 X
2.5% - 3.5%	17.7
3.5% - 4.5%	12.1
4.5% - 5.5%	14.2
5.5% - 6.5%	12.8
6.5% - 7.5%	10.0
Greater than 7.5%	8.6

(a) For the period 1950-2001.

Current Forecasts	12 month Forward PE					
	US	Eur ex UK	UK	Japan	Asia exJap	World
BASIC INDUSTRIES	16.7	10.3	10.5	19.7	12.0	13.0
CAPITAL GOODS	14.5	12.5	12.7	21.1	9.2	14.0
CONSUMER CYCLICALS	15.1	9.6	11.9	14.6	10.0	13.3
CONSUMER STABLES	14.7	14.6	12.3	21.6	14.6	14.5
ENERGY	15.0	11.6	15.2	20.8	8.9	13.7
FINANCIALS ¹	11.3	9.7	9.7	19.6	11.1	10.8
HEALTH CARE	17.9	16.1	14.9	17.2	20.0	17.2
TECHNOLOGY	23.7	29.9	17.8	25.2	15.8	23.7
UTILITIES	10.5	11.6	11.8	15.1	9.5	11.4
TELECOMS	15.1	31.0	NM	20.3	10.4	34.0
MARKET	15.3	12.6	16.0	18.1	11.3	14.5

10 Year Averages	12 month Forward PE					
	US	Eur ex UK	UK	Japan	Asia ex Jap	World
BASIC INDUSTRIES	16.5	14.1	13.7	49.7	14.5	17.7
CAPITAL GOODS	18.0	16.4	13.8	37.8	13.4	19.9
CONSUMER CYCLICALS	16.8	17.6	15.0	36.3	16.0	19.9
CONSUMER STABLES	20.1	19.3	14.3	38.5	15.5	19.4
ENERGY	18.6	16.5	17.5	37.6	11.5	18.0
FINANCIALS & INSURANCE	13.1	15.8	13.1	52.9	12.3	16.0
HEALTH CARE	21.5	21.5	21.4	28.9	19.1	22.3
TECHNOLOGY	24.7	26.4	20.7	59.1	18.8	28.2
UTILITIES	14.6	15.9	13.8	34.9	13.3	15.1
TELECOMS	20.3	25.9	25.2	93.5	18.9	22.8
MARKET	18.0	17.6	15.9	41.3	13.7	19.4

Summary

Near Term Expectations

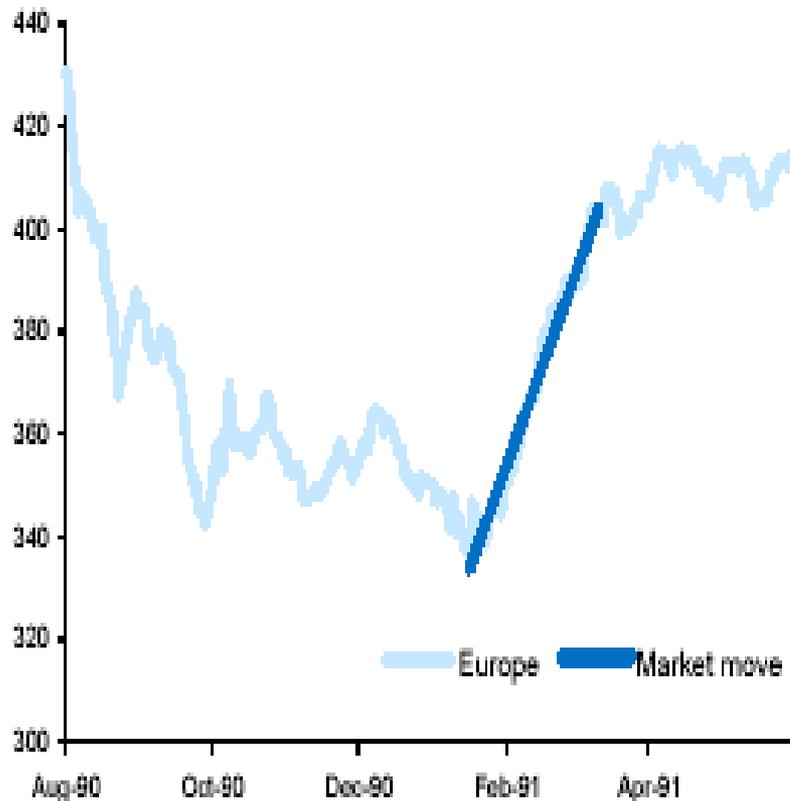
- Inflation: **2.1%** - rising from current 1.5%.
- Cash returns: **2.6%** - rising short-term yields, but still low real return of 0.4% (Euro\$ 90 day futures)
- Bond returns: **4.75% - 5%** (2%- 2.6% real):
 - reflects current yield-to-worst, plus small adjustment
 - build in moderate increase in short rates, relatively stable long rates, narrowing of credit spreads.
- Equity returns – **9% - 9.7%**
 - 3.2% real GDP growth, 2% dividend yield, 0.5%-1% “buyback” yield, 2.1% inflation, 1%-1.5% “Catchup”

MAJOR RISKS

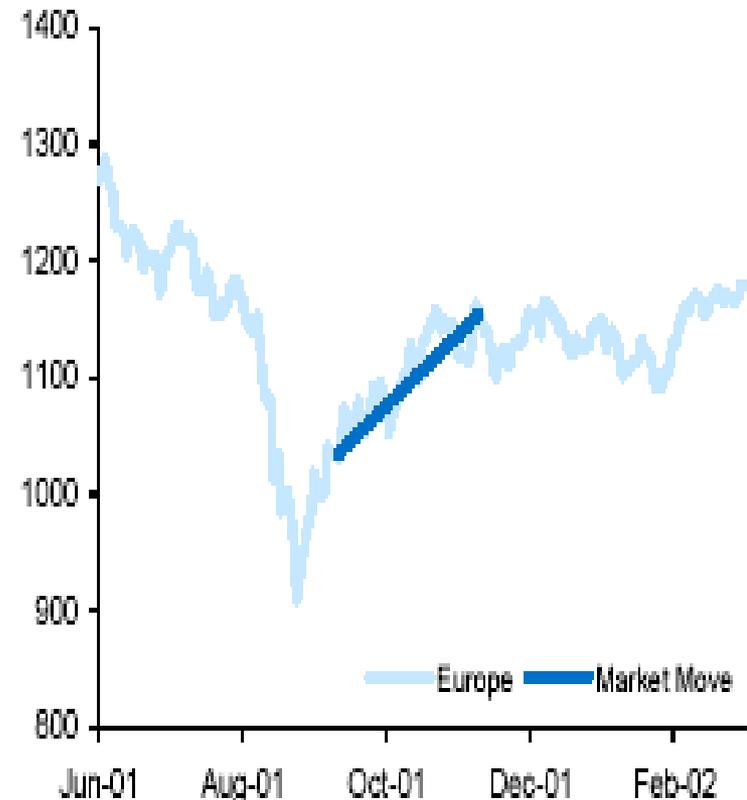
- War and terror
 - Quagmire or major terrorist event
 - Impact on consumer behavior and business investment
 - Major Sustained Oil Disruption
- Economic risks
 - Consumer stops spending
 - Inflation takes off, crushing the bond market, or deflation occurs, crushing stock and corporate bond markets
 - Corporations never recover pricing power or profitability

War and the Markets

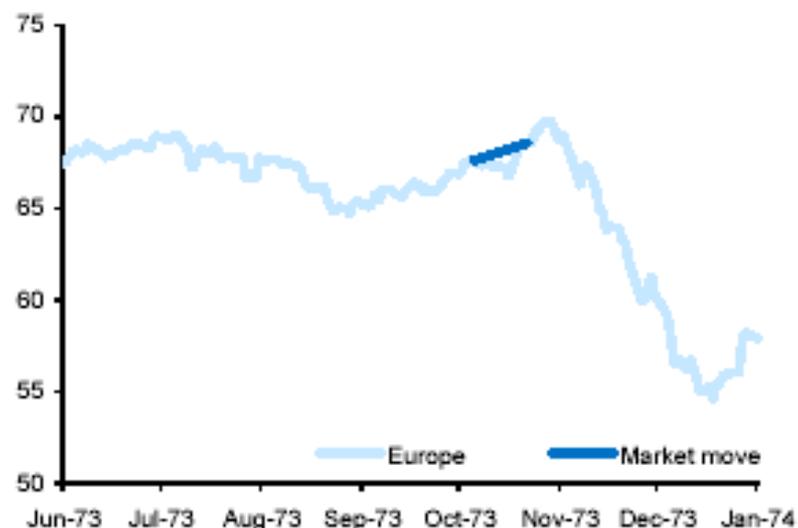
Gulf war



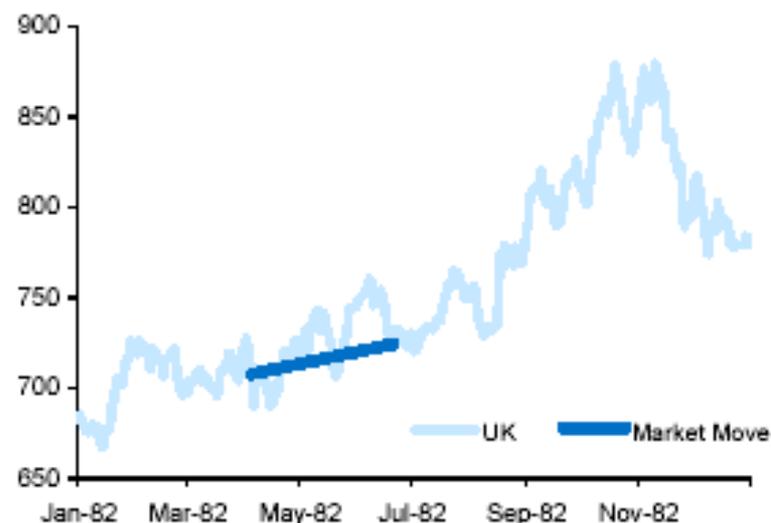
Afghanistan war



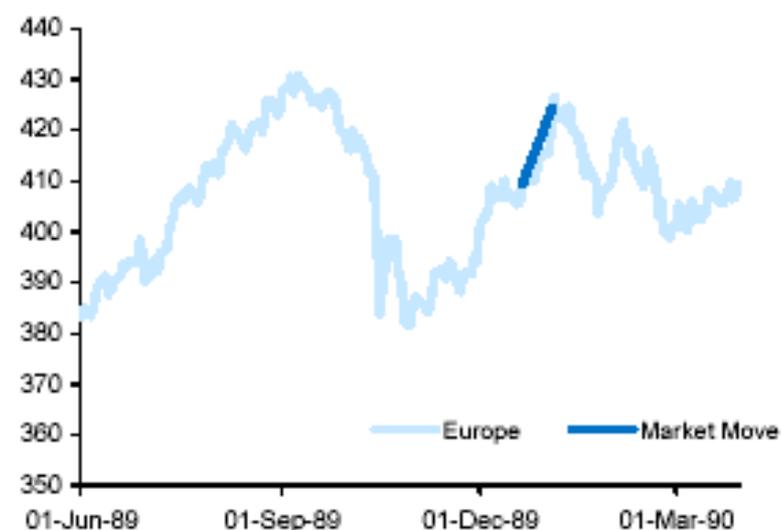
Yom Kippur war



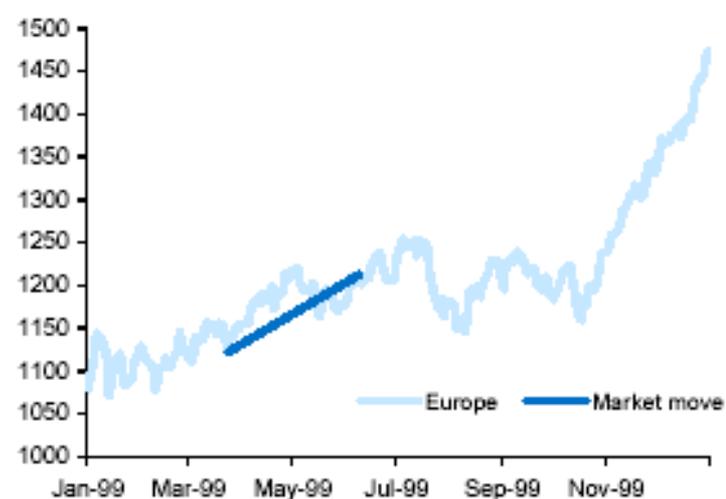
Falklands war



Panama invasion



Kosovo bombing



PERSI PORTFOLIO STATUS REPORT

February 3, 2003

	Latest Month	Fiscal Year to Date
Beginning Value	\$5,878,228,445	\$6,294,160,887
Net Contributions	\$4,571,930	\$20,404,736
Investment Gain	\$20,959,211	(\$410,806,036)
Ending Value	\$5,903,759,586	\$5,903,759,586

	Month	QTD	FYTD	1 Yr	2 Yr	3 Yr	4 Yr	5 Yr
Total Fund	0.4%	-1.3%	-6.5%	-9.0%	-7.2%	-5.8%	0.1%	1.5%
<i>No rebalancing</i>	0.4%	-1.6%	-7.6%	-10.8%	-8.1%	-7.6%	-2.6%	-0.2%
<i>Benchmark (55-15-30)</i>	0.4%	-1.6%	-7.7%	-11.6%	-8.5%	-8.0%	-2.6%	0.0%
<i>PERSI rebalancing</i>	0.4%	-1.6%	-7.6%	-11.6%	-8.6%	-7.2%	-2.3%	0.2%
<i>Strategic Policies</i>	0.4%	-1.5%	-7.1%	-10.2%	-7.1%	-6.6%	-0.9%	0.7%
U.S. Equity	0.3%	-2.0%	-11.3%	-17.2%	-13.0%	-11.1%	-4.1%	-1.5%
<i>W5000 Index</i>	0.4%	-2.3%	-12.6%	-20.3%	-14.5%	-14.5%	-6.7%	-2.9%
Global Equity	0.6%	-1.3%	-12.1%	-16.8%	-13.7%	-11.6%	0.2%	1.2%
<i>World Index</i>	0.9%	0.9%	-10.7%	-15.2%	-14.6%	-14.4%	-7.0%	-3.3%
Int. Equity	1.2%	-2.6%	-16.1%	-15.9%	-16.1%	-17.2%	-5.0%	-4.0%
<i>MSCI EAFE</i>	1.5%	-2.8%	-17.4%	-14.6%	-16.7%	-16.9%	-7.8%	-5.3%
Fixed Income	0.0%	0.1%	7.8%	10.8%	8.8%	10.7%	8.2%	7.8%
<i>Lehman Agg</i>	0.0%	0.1%	6.5%	8.5%	8.1%	9.9%	7.6%	7.3%