

BIANCO RESEARCH, L.L.C.

AN ARBOR RESEARCH & TRADING, INC. AFFILIATE
1000 HART ROAD • SUITE 250 • BARRINGTON, ILLINOIS 60010
E-MAIL: jbianco@biancoresearch.com • WEB SITE: www.BiancoResearch.com
TOLL FREE 800-876-1825 • PHONE 847-304-1511 • FAX 847-304-1749

James A. Bianco, CMT



Macro Technical Analysis Presented to the IFTA 1999 Conference October 19, 1999

Long-Term Interest Rates - 1900 to 1999

About This Presentation

Contrary to the beliefs of many hard line technical analysts who rely solely upon the “*holy six*” market elements (high, low, open, close, volume, and open interest), Jim has found that certain fundamental data, such as earnings and economic releases, can provide an edge in market forecasting. Using numerous examples from the bond market, Jim will show you how to create an effective bond trading strategy which incorporates both fundamental data and technical analysis. He will also explain why some fundamental data, such as inflation, is NOT useful in market projection.

Jim will also address the effects of commodity prices on bond yields, how the ratio of the equity market’s capitalization as a percentage of nominal gross domestic product affects price performance of the stock market, the role government regulation plays in determining inflation, how market performance affects mutual fund investors, the role politics plays in setting interest rates, and measuring the stock and bond markets from a total-return perspective.

About The Speaker

James Bianco is President of Bianco Research, LLC, an Arbor Research & Trading, Inc. affiliate.

He was National Vice President of the Market Technicians Association in 1996.

His work is devoted primarily to the fixed income markets, emphasizing the money flow characteristics of primary dealers, mutual funds, hedge funds, futures traders, banks, and institutional investors.

Prior to joining Arbor and Bianco Research, Jim spent five years in New York, as a market strategist in equity and fixed income research at UBS Securities and as an equity technical analyst with First Boston and Shearson Lehman Brothers.

Jim has spoken at many investment conferences and is regularly featured in "A-List" investment publications, including the Wall Street Journal, New York Times, Barron's, US News and World Report, BusinessWeek, Forbes, and Fortune (among others) as well as all the major newswires.

He does a weekly commentary for CNNfn, has made frequent appearances on CNBC, and has written articles for Stocks and Commodities, Financial Trader and Futures magazines.

Major Themes

- **The Three Components of Price Movements:**
Cycle, Trend and Noise
- **What Doesn't Work?**
Inflation or Real Rates
The Dollar or Foreign Activity in U.S. Markets
- **What Does Work?**
The Wealth Effect
How Stocks Are Changing The World
Bond Rally Only When Stocks Fall

The Three Components of Price Movements

- ***Cycle*** - This is the “big picture”
- ***Trend*** - This is where our presentation is *most* relevant.
- ***Noise*** - This is where most day traders operate. Our presentation will *not* deal in this area *directly*.

What Doesn't Work? - Inflation

- *The reasons for the carnage are clear. Much of the blame traces to the two recent moves by the Federal Reserve to raise key interest rates to cool the red-hot economy, and concern about rising inflation. -- Wall Street Journal, 9/13/99*

Real Rate Myth

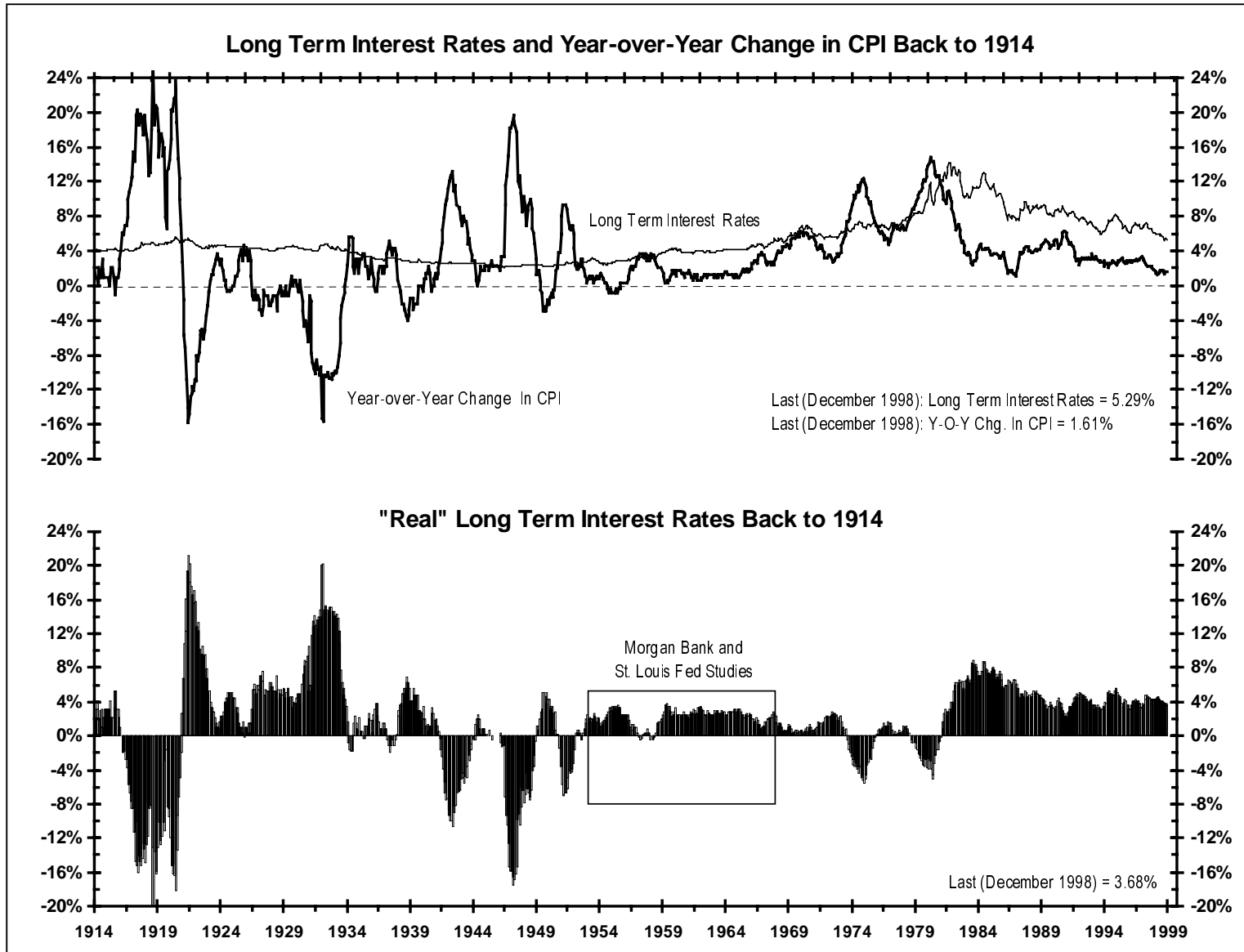
- The real rate theory can trace its roots back to 1810 when British monetary theorist Henry Thornton observed that, "In countries where the currency was in rapid depreciation, the rate of interest should be proportionately augmented." So, the idea of real rates is not exactly new.
- The modern interpretation of the real rate theory was proposed by Irving Fisher (Appreciation and Interest, 1896; The Theory of Interest Rates, 1930) in which he stated that interest rates were comprised of two components: 1) A rent on capital or a "real" rate and 2) a premium based in the expected change in prices. Building upon this were studies in 1969 by the Federal Reserve Bank of St. Louis and 1970 by Morgan Guaranty Trust. The St. Louis study, "Interest Rates and Price Level Changes, 1952 to 1969" by Yohe and Kamosky found that during the period of the study (see chart) a 3% premium over inflation prevailed. The second report, "How to Get Interest Rates Down" by Ralph Leach showed similar results in testing the real rate theory during the 1960s.
- After the publication of these reports the "3% interest rate premium" became dogma in the investment community. It is so accepted now that few bother to question it. However, as the chart shows, the only time this theory appeared to work was from the early 50s to the late 60s -- exactly the period of the studies mentioned above. During most of the years shown, and especially since 1970, real rates have **not** shown a tendency to adhere to this theory. In fact, the only time since 1981 that real yields have been below 3% was September to December 1990 – the beginning of the best bull market of the 1990s.

Some statistics about Real Rates (through December, 1998)

Period	Median	Average	Std Dev	+1 Std Dev	-1 Std Dev	% Neg.	Correlation: LT Rates & YOY CPI	Largest Positive	Date	Largest Negative	Date
Since 1914	2.47%	1.74%	5.56%	7.30%	-3.83%	22.35%	22.88%	21.21%	Jun-21	-21.22%	Aug-18
Since WW II	2.50%	1.74%	3.83%	5.57%	-2.09%	18.56%	32.98%	8.86%	Aug-83	-17.48%	Mar-47
Morgan & Fed Study	2.49%	2.17%	0.97%	3.14%	1.21%	5.88%	54.64%	3.73%	May-59	-0.47%	Mar-57
Since Sept. 1981	4.60%	4.97%	1.49%	6.46%	3.47%	0.00%	69.27%	8.86%	Aug-83	2.19%	Dec-90

Period	Median	Average	Std Dev	+1 Std Dev	-1 Std Dev	% Negative	Correlation: LT Rates and YOY CPI	Largest Positive	Date	Largest Negative	Date
Since 1801	4.53%	4.64%	6.00%	10.64%	-1.36%	12.25%	-2.50%	21.23%	1802	-21.22%	1918
1800 to 1913	7.17%	6.84%	5.38%	12.22%	1.46%	4.68%	38.18%	21.23%	1802	-20.80%	1864
Since 1913	2.50%	1.77%	5.55%	7.32%	-3.77%	22.11%	71.25%	21.21%	1921	-21.22%	1918

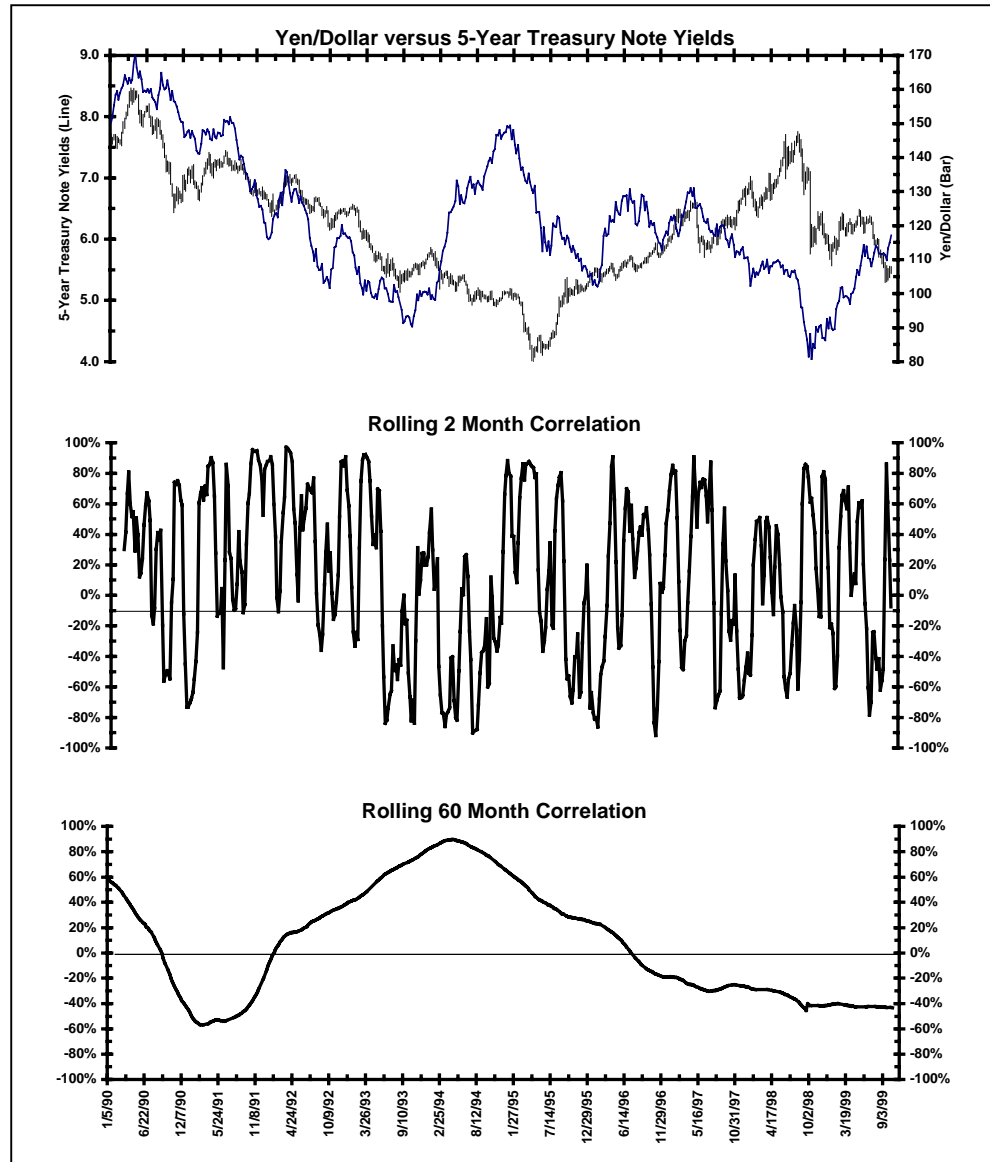
"Real" Long Term Interest Rates Back To 1914



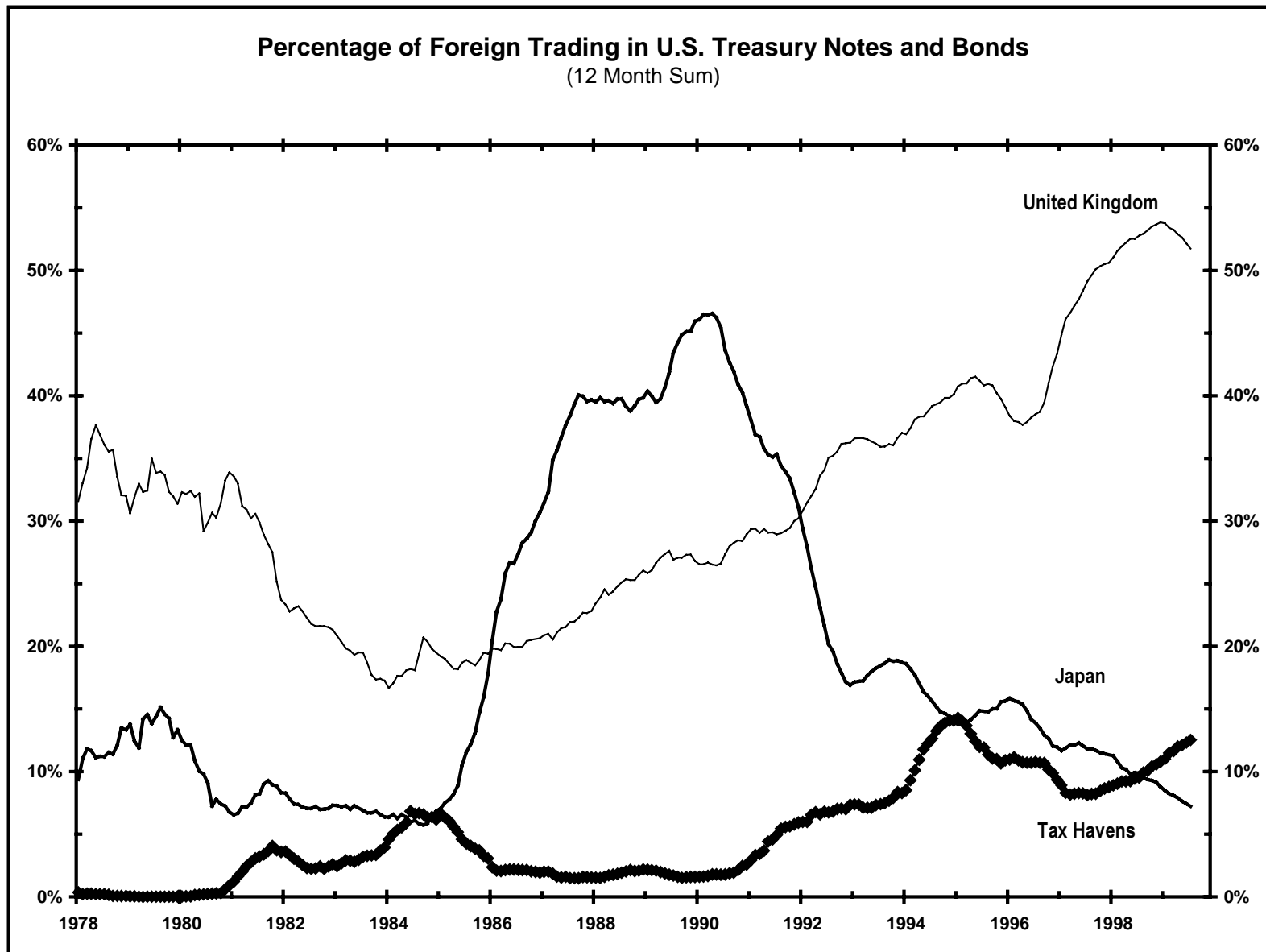
What Doesn't Work? - The Dollar

This chart shows no consistent relationship exists between the Yen/Dollar and the yield of the 5-year Treasury Note. This runs counter to conventional wisdom.

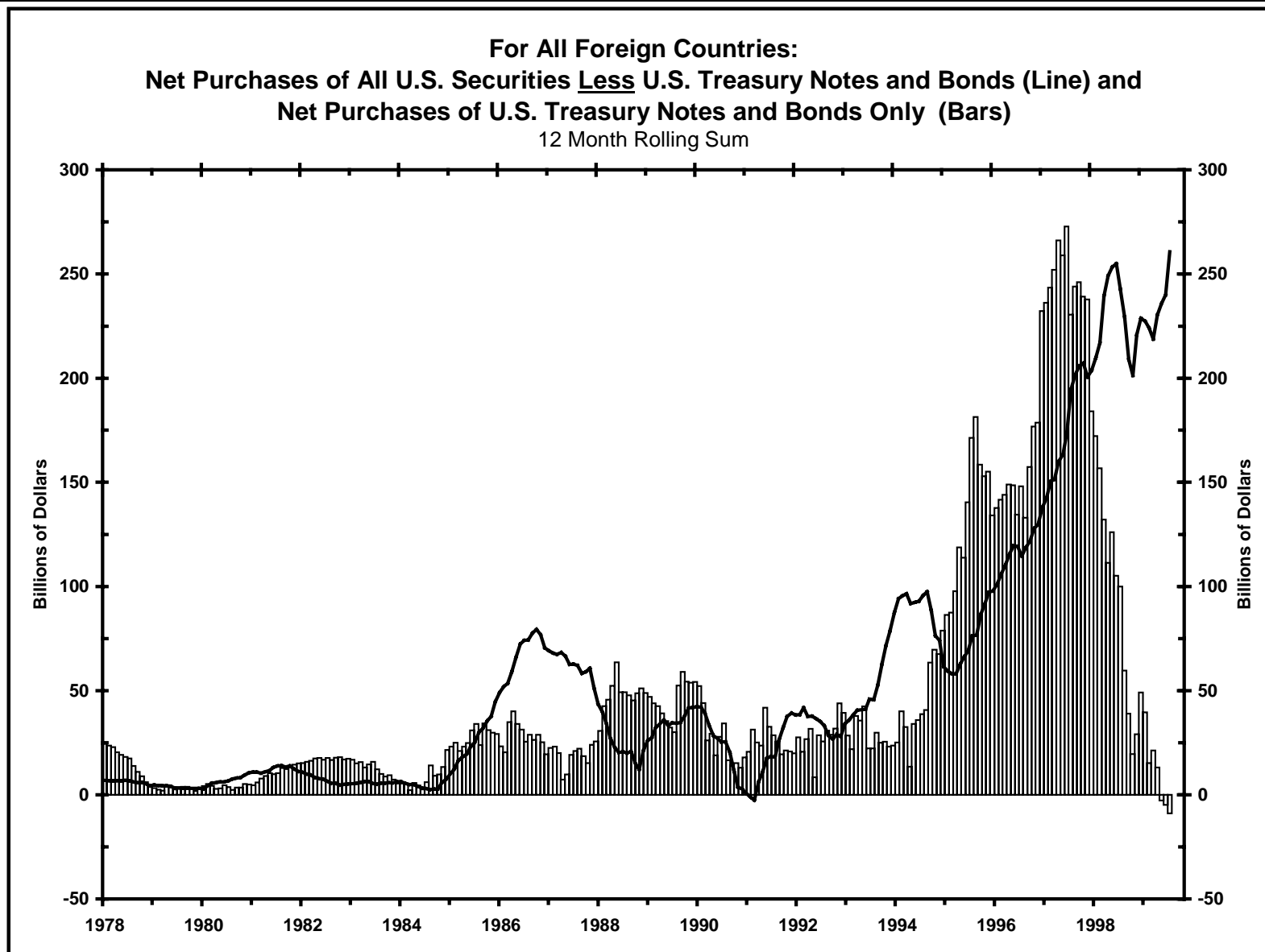
The top panel of this chart shows the Yen/Dollar exchange rate overlaid on the yield of the 5-year Treasury Note. The second panel is a rolling two-month correlation of these series. The third panel is a rolling 60-month correlation of these series. Neither of the two bottom panels shows a consistent relationship.



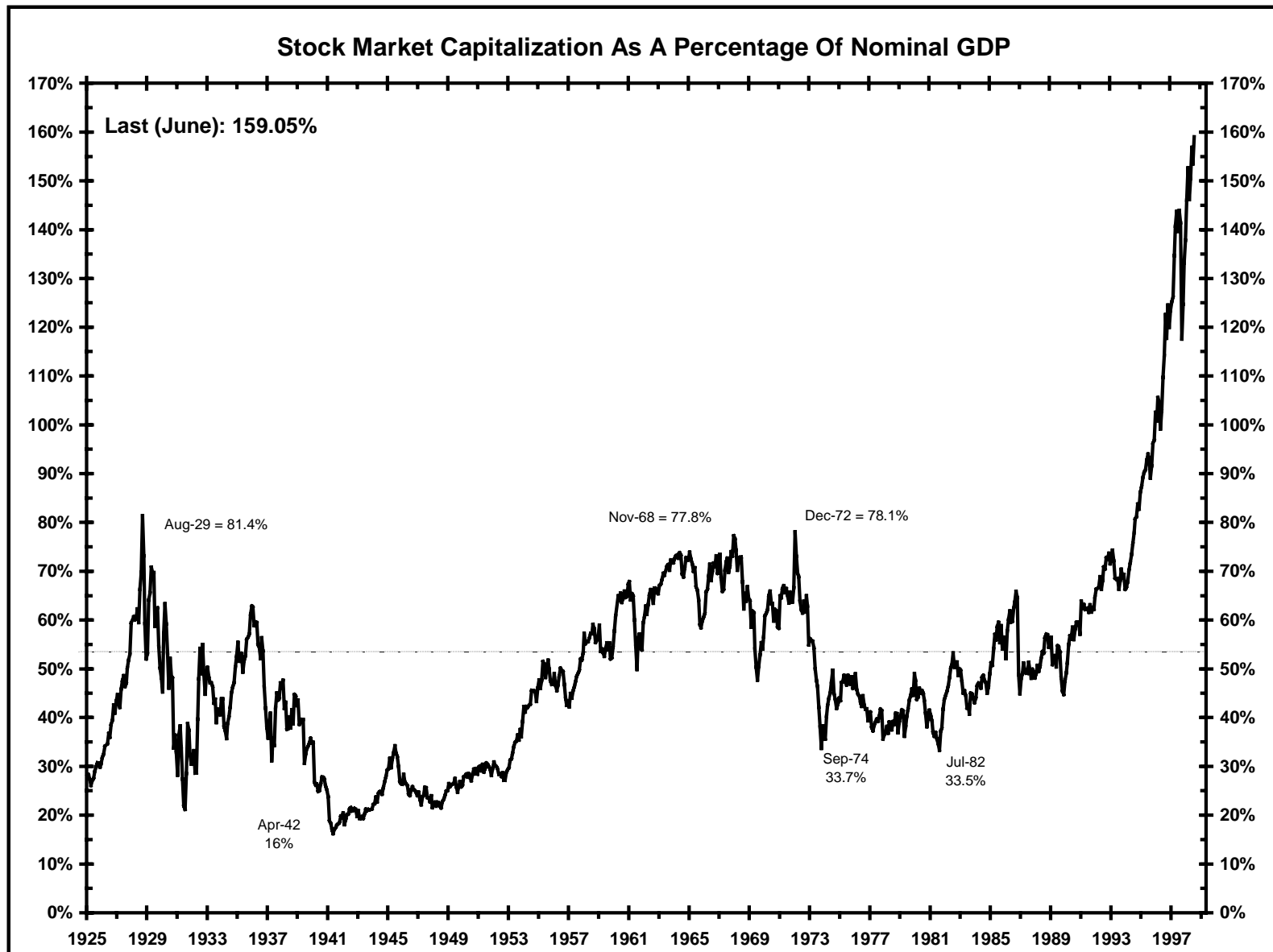
Why The Dollar Doesn't Work



Foreigners Hate Treasuries . . . And Love Everything Else



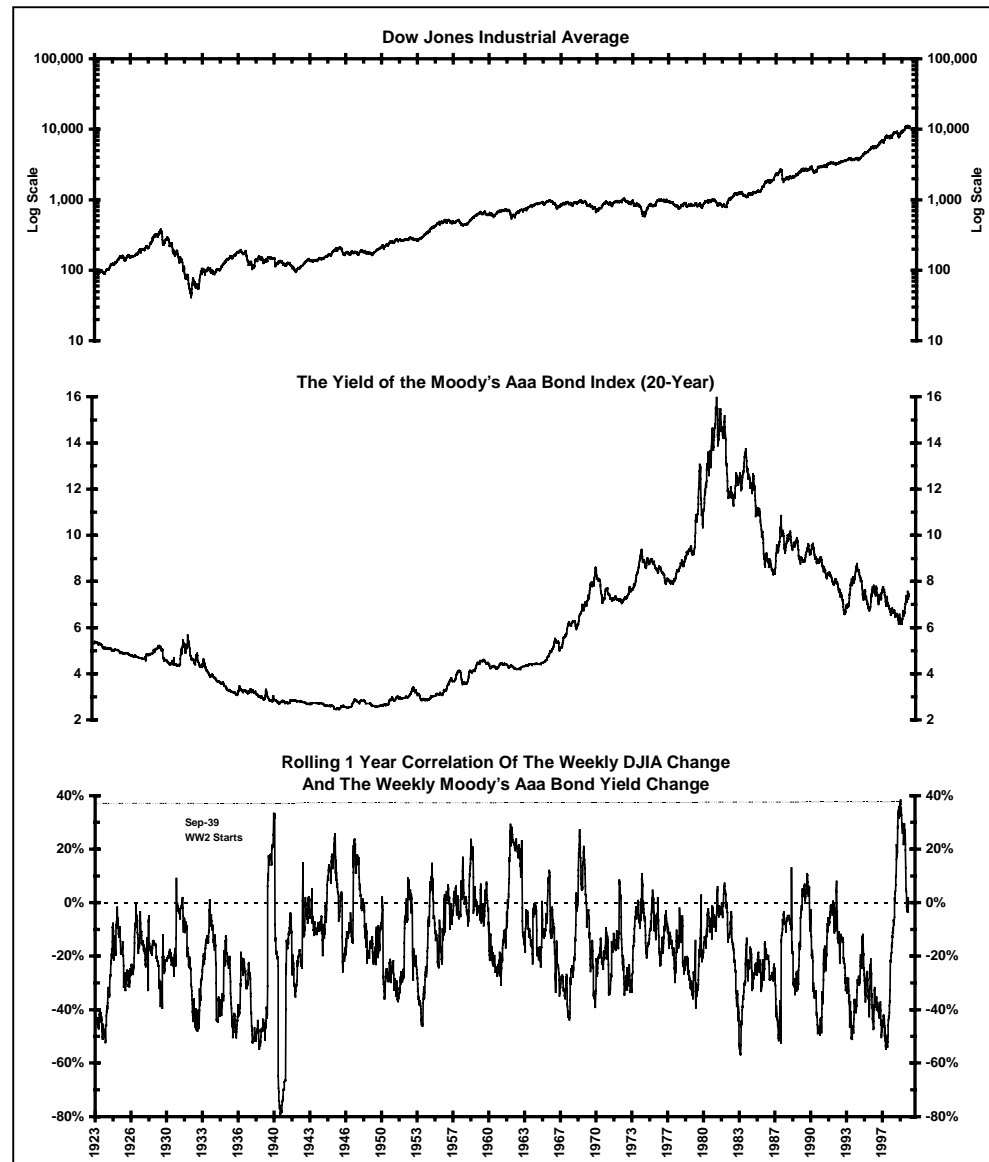
What Does Work? - The Wealth Effect



How Stocks Are Changing The World

We use this chart to show the amount of wealth the stock market has created over the last two years. As of June 30, 1999, the two-year increase in the stock market's capitalization surged by \$4.934 trillion or, 56% the size of nominal GDP

As this chart shows, when the two year increase in the stock market's capitalization is expressed as a percentage of nominal GDP, recent gains are the largest ever seen. To appreciate how large these gains are, consider that they are larger than M2, larger than all the assets in the banking system (\$4.5T) or, almost as large as the most popular bond market benchmark index, the Lehman Aggregate Index (\$5.4T).



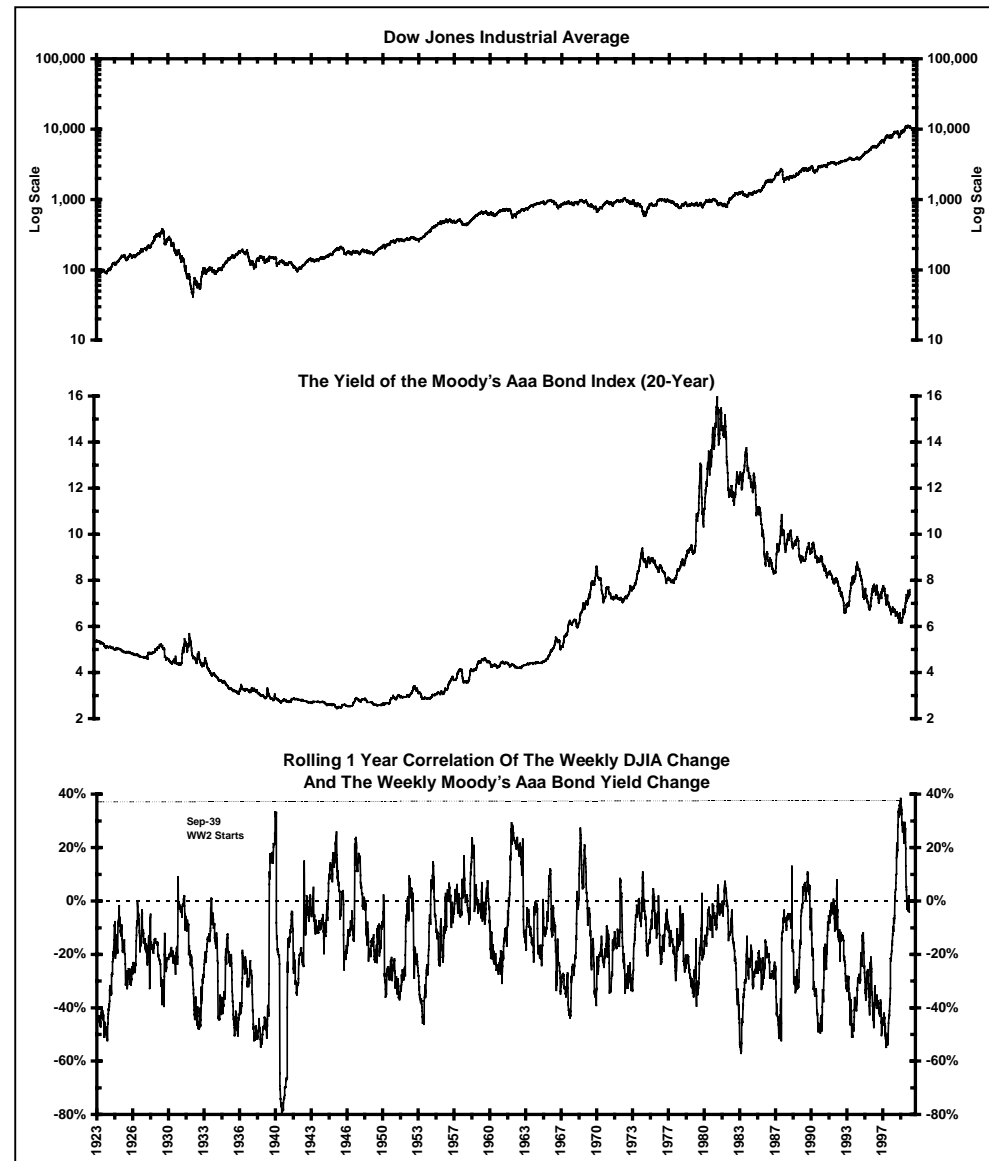
How Stocks Are Changing The World

This chart shows the relationship between stock prices and interest rates. The top panel shows the stock market (Dow Jones Industrial Average - DJIA). The middle panel shows interest rates (the yield of the Moody's Aaa Bond Index). The bottom panel shows a rolling 52 week (1 year) correlation of the weekly change of the stock market and the weekly change of interest rates.

For the 30 years ending in the summer of 1997, the correlation between changes in stock prices and the changes in interest rates were almost always negative. This means that stock prices would rise when interest rates were falling and vice versa. One could argue as to which market leads and which follows, but the fact is that stock prices and interest rates had a consistent inverse relationship with each other.

Starting in July of 1997, the correlation between stocks and bonds began its most dramatic change ever. The correlation moved from very negative to positive, suggesting that stocks and interest rates are now moving in the same direction.

How large is this change? This chart traces this relationship back to 1923. Note that the correlation peaked at its most positive ever -- 40% on 12/15/98.



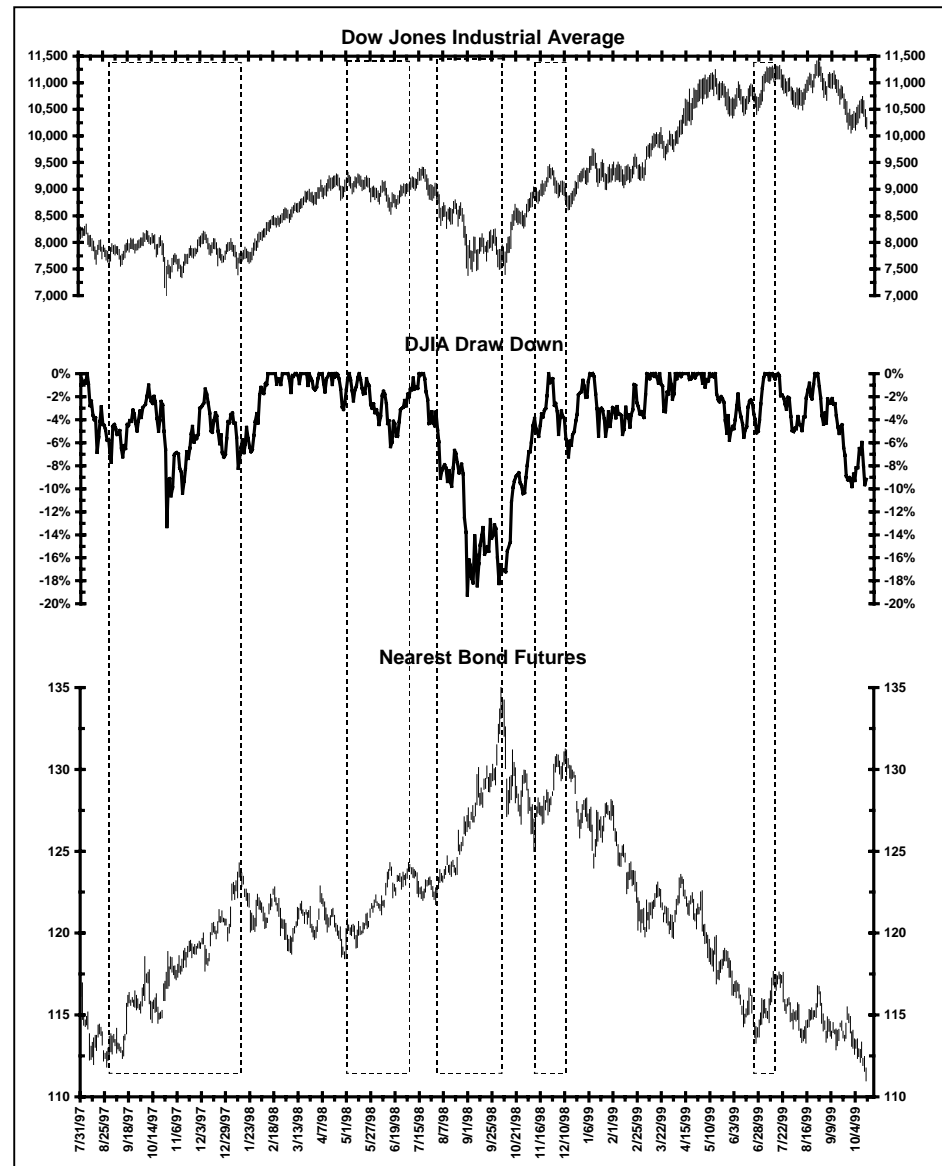
Bonds Rally Only When Stocks Fall

This chart shows the relationship between stocks and bonds over the last 2 years.

The top panel is the DJIA. The middle panel is a “drawdown” chart of the DJIA. A drawdown chart measures how far the DJIA is from its all-time high (a reading of 0% means a new all-time closing high). The bottom panel is the nearest bond futures contract.

This chart has five boxed periods. These are the four largest bond rallies since mid-1997.

Note that no bond rally in the last 2 years has occurred when stock prices were rising. When stocks were making new all-time highs, bonds were either declining or, at best, trending sideways.



BIANCO RESEARCH, L.L.C.

AN ARBOR RESEARCH & TRADING, INC. AFFILIATE

1000 HART ROAD • SUITE 250 • BARRINGTON, ILLINOIS 60010

E-MAIL: jbianco@biancoresearch.com • WEB SITE: www.BiancoResearch.com

TOLL FREE 800-876-1825 • PHONE 847-304-1511 • FAX 847-304-1749

James A. Bianco, CMT
