

Bianco Research L.L.C.
An Arbor Research & Trading Company
Independent · Objective · Original

Volume 9, No. 5

1113 West Armitage, Chicago IL 60614

www.biancoresearch.com

Market Facts

Gregory M. Blaha (847) 304-1506
James A. Bianco, CMT (847) 304-1511
May 19, 2004

A Review of Leverage Measures in the Bond Market

The most pressing question hanging over financial markets today isn't when interest rates will rise. They already are rising. And nearly every economist on Wall Street sees the Federal Reserve raising short-term rates sometime this summer. But just how Wall Street deals with a rising-rate environment has become a pressing question. Nervous analysts wonder if the Fed's move to increase short-term rates, no matter how well telegraphed, will catch risk-hungry and yield-seeking investors off-guard. — The Wall Street Journal, May 17, 2004

As the quote above points out, the markets now expect the Federal Reserve to begin raising interest rates. While this is a well-known fact, many people still wonder how the markets will react once these hikes begin. A large part of this uncertainty can be attributed to the fact that the bond market has been leveraged to record levels over the past year. Now that rates have been rising since their mid-March low, these leveraged players are faced with a difficult decision. Should they continue with their leveraged carry trade positions, or should they get out before rates rise further?

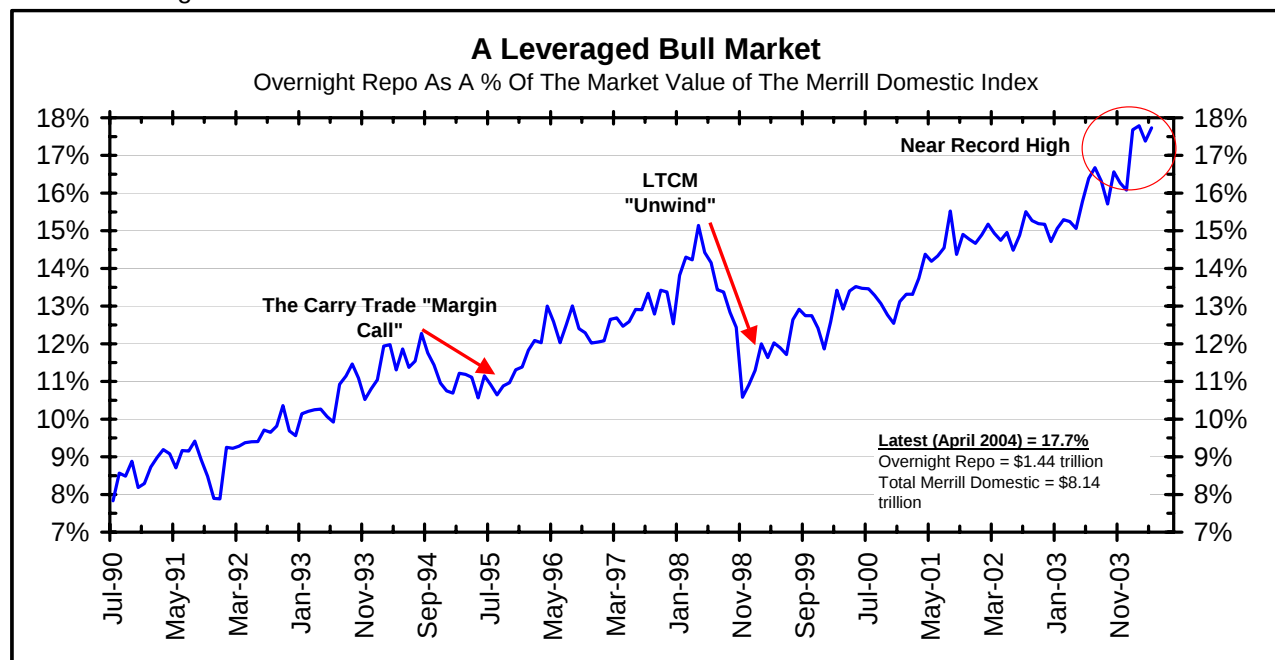
To keep an eye on the general level of leverage in the marketplace, we have constructed a series of charts. Following is a review of how the influx of

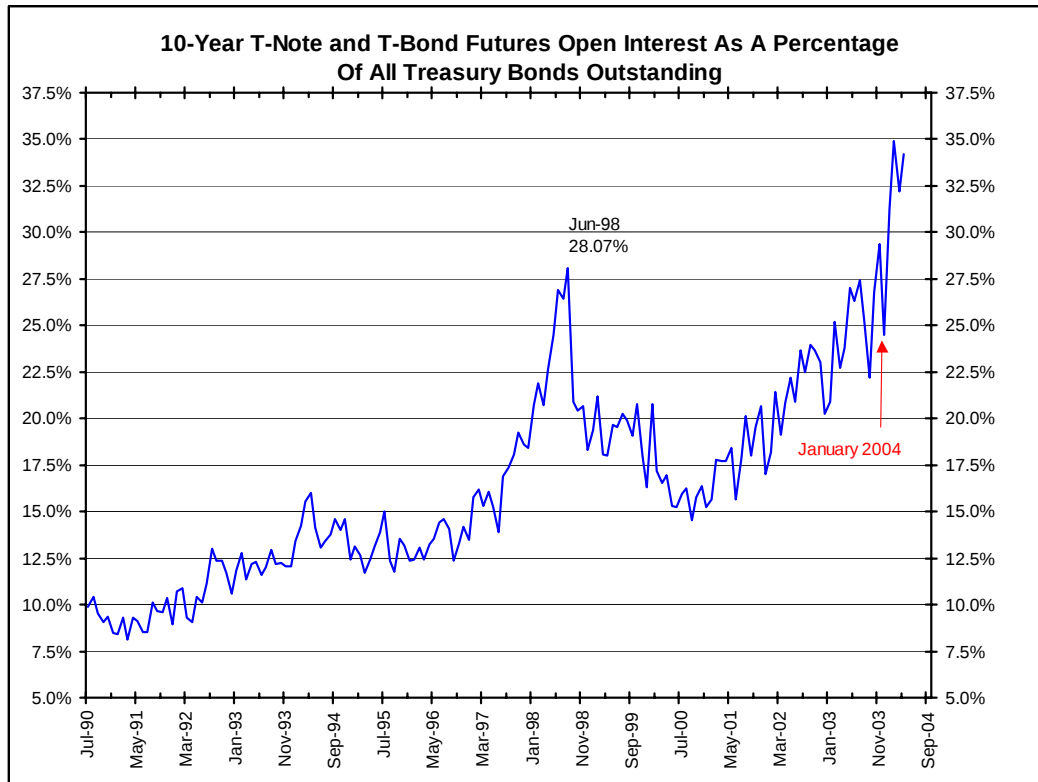
"cheap money" has been affecting leverage in the bond market.

Just How Leveraged Is The Bond Market?

The chart below shows the total amount of overnight repurchase agreements outstanding as a percentage of the market value of the Merrill Domestic Master Index (a broad measure of the size of the fixed-income market). You may think of this as the most comprehensive measure of leverage in the bond market.

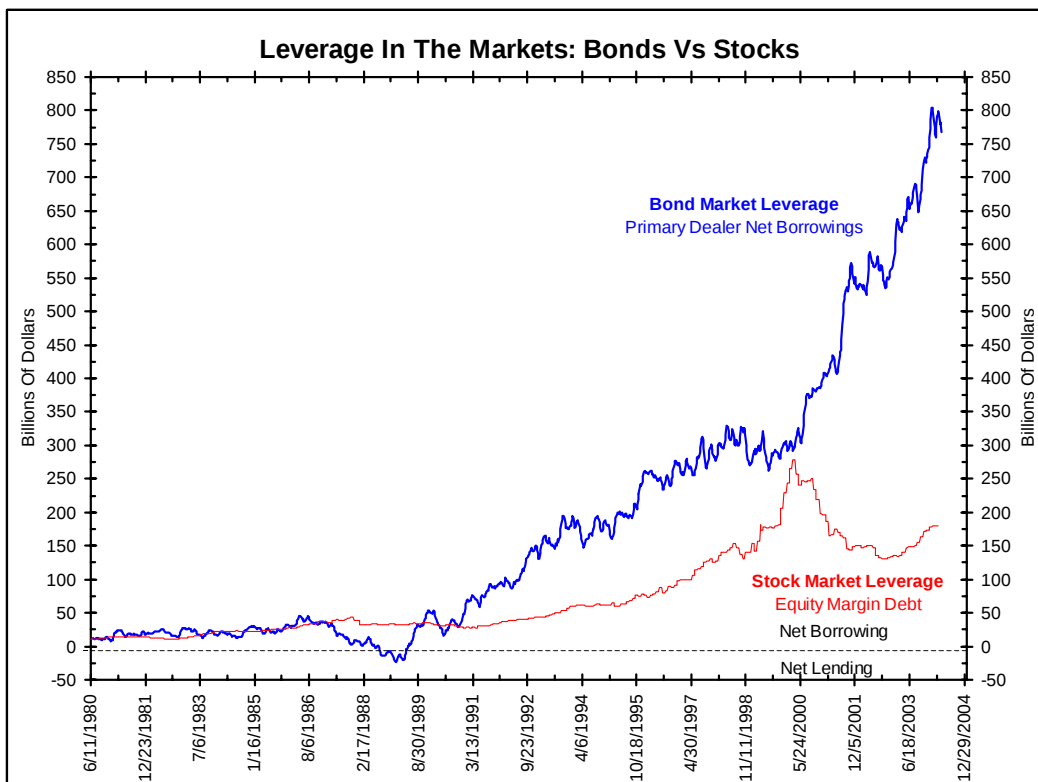
By this measure, bond investors have not reduced their leverage by any significant degree (current through April 30).





The chart above shows the total notional value of open interest in 10-year notes and long bonds as a percentage of the total value of all bonds outstanding. This confirms the view that the bond

market is at an extreme in leverage. While this fact is impressive, it is still difficult to grasp the overall level of leverage relative to other markets. For this reason, we created the chart below.



The chart on the previous page attempts to put the current level of bond market leverage into perspective. For the bond market, this raw number is represented by primary dealer net borrowings (total primary dealer repo less reverse repos outstanding) shown as the thick blue line. The latest level is near \$768 billion. A stock market equivalent of primary dealer net borrowings is equity margin debt, shown as the thin red line. By these two measures, the stock and bond markets were similarly leveraged in March 2000. Since then, however, leverage in the stock market has tailed off (after stocks peaked) while bond market leverage has exploded higher.

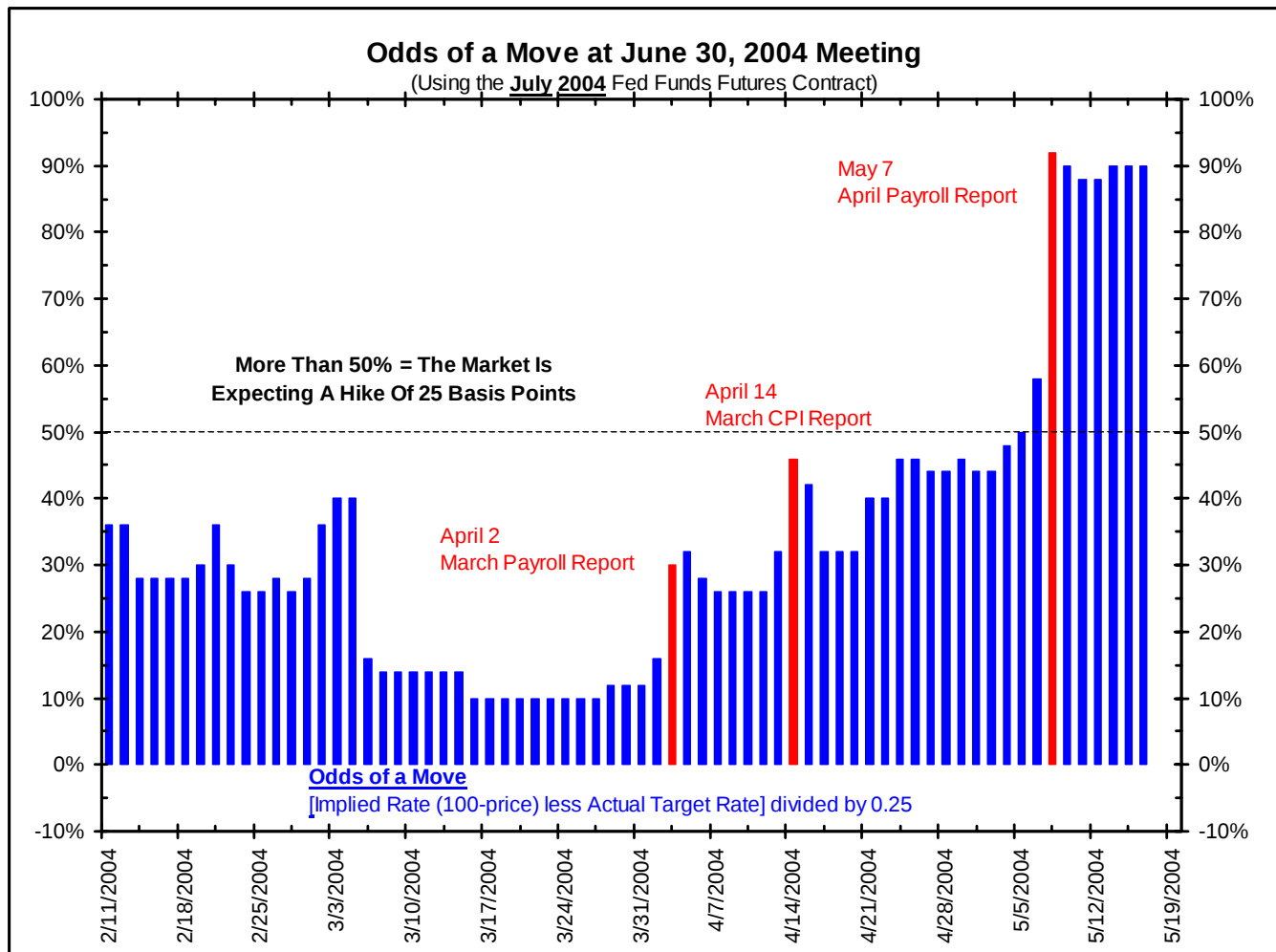
Conclusion

If one examines measures of leverage in the bond market, they all give the same answer – the bond

market **still** has a record amount of leverage. The size of the repo and futures market is still near record highs.

The common thread that has been driving all this leverage is a 1% funds rate and the Fed offering a timeline on how long this source of cheap financing will last (“patience” and “measured”).

Given all this leverage, it is reasonable to expect the bond market to react violently to anything that may change the outlook for this cheap financing. Despite rising interest rates and a fed funds futures market that has already priced in a Fed hike on June 30 (see below), this has not been the case yet. While some investors have undoubtedly exited their leveraged positions, the bond market is still very highly leveraged.



Bianco Research L.L.C.

1113 West Armitage, Suite 4
Chicago IL 60614

Phone: (847) 304-1511 Fax (847) 304-1749
e-mail: research@biancoresearch.com
<http://www.biancoresearch.com>

For more information about the contents/ opinions contained in these reports:

President (847) 304-1511
James A. Bianco jbianco@biancoresearch.com

Research Analysts (847) 304-1506/1534
John J. Kosar jkosar@biancoresearch.com
Greg Blaha gblaha@biancoresearch.com
Neil Bouhan nbouhan@biancoresearch.com

For subscription/service Information:

Arbor Research & Trading, Inc.
Director of Sales & Marketing (800) 876-1825
Fritz Handler fritz.handler@arborresearch.com
Patrick Lovett pat.lovett@arborresearch.com
Peter Forbes peter.forbes@arborresearch.com

Arbor Research & Trading, Inc.

1000 Hart Road, Suite 260
Barrington IL 60010

Phone (847) 304-1560 Fax (847) 304-1595
e-mail inforequest@arborresearch.com
<http://www.arborresearch.com>

For more information about Arbor Research & Trading and its services:

Director of Fixed-Income Sales (800) 876-1825
Daniel Lustig dan.lustig@arborresearch.com
Director of International Sales (847) 304-1560
James L. Perry james.perry@arborresearch.com

Arbor Research & Trading (UK) LTD

75 Cannon Street London England EC4N 5BN
Phone 44-207-556-7309 Fax 44-207-896-1887

For more information:

Director of Arbor (UK) 44-207-556-7309
Neil Tritton neil.tritton@arborresearch.com
Ben Gibson ben.gibson@arborresearch.com
Richard Stephenson richard.stephenson@arborresearch.com