CAMBRIDGEASSOCIATES LLC

## U.S.MARKET COM M EN TARY

## DECONSTRUCTING THE BULLISH CASE ON U.S. EQUITIES

## September 2006

Eric Winig<br>Maggie Patton

## Copyright © 2006 by Cambridge Associates LLC. All rights reserved.

This report may not be displayed, reproduced, distributed, transmitted, or used to create derivative works in any form, in whole or in portion, by any means, without written permission from Cambridge Associates LLC ("CA"). Copying of this publication is a violation of federal copyright laws ( 17 U.S.C. 101 et seq.). Violators of this copyright may be subject to liability for substantial monetary damages. The information and material published in this report are confidential and non-transferable. This means that authorized members may not disclose any information or material derived from this report to third parties, or use information or material from this report, without prior written authorization. An authorized member may disclose information or material from this report to its staff, trustees, or Investment Committee with the understanding that these individuals will treat it confidentially. Additionally, information from this report may be disclosed if disclosure is required by law or court order, but members are required to provide notice to CA reasonably in advance of such disclosure. This report is provided for informational purposes only. It is not intended to constitute an offer of securities of any of the issuers that are described in the report. This report is provided only to persons that CA believes to be "Accredited Investors" as that term is defined in Regulation D under the Securities Act of 1933. When applicable, investors should completely review all Fund offering materials before considering an investment. No part of this report is intended as a recommendation of any firm or any security. Factual information contained herein about investment firms and their returns which has not been independently verified has generally been collected from the firms themselves through the mail. CA can neither assure nor accept responsibility for accuracy, but substantial legal liability may apply to misrepresentations of results delivered through the mail. The CA manager universe statistics, including medians, are derived from CA's proprietary database covering investment managers. These universe statistics and rankings exclude managers that exclude cash from their reported total returns, and for calculations including any years from 1998 to the present, those managers with less than $\$ 50$ million in product assets. Returns for inactive (discontinued) managers are included if performance is available for the entire period measured. Performance results are generally gross of investment management fees. CA does not necessarily endorse or recommend the managers in this universe.
Cambridge Associates LLC is a Massachusetts limited liability company headquartered in Boston, MA with branch offices in Arlington, VA; Dallas, TX; and Menlo Park, CA. Cambridge Associates Limited is a Massachusetts limited liability company headquartered in Boston, MA and registered in England and Wales (No. FC022523, Branch No. BR005540). Cambridge Associates Limited also is registered to conduct business in Sydney, Australia (ARBD 109366 654). Cambridge Associates Asia Pte Ltd is a Singapore corporation (Registration No. 200101063G).

CAMBRIDGE ASSOCIATES LLC

## Deconstructing the Bullish Case on U.S. Equities

U.S. equities have rallied strongly since bottoming in June, with recent gains attributed to investor optimism that the Federal Reserve has achieved a "soft landing" for the economy. Still, we continue to recommend investors tread cautiously, due to our belief that U.S. equities are in a secular bear market. ${ }^{1}$ While this remains our base scenario, there are wide differences of opinion on the topic, with several wellrespected observers arguing conditions have improved over the past few years, and that U.S. equities, while perhaps not screamingly cheap, are not particularly expensive, either.

## Doing the Math

We have always been firm believers in "doing the math" when it comes to equity market valuations. Put simply, this comes down to a reliance on historical data and an expectation that valuations will eventually revert to their long-term averages. (Of course, we also recognize that structural changes can shift these averages; in emerging markets, for example, at least part of the recent surge in return on equity appears due to long-term improvements in capital markets. ${ }^{2}$ ) Unfortunately, when viewed from this standpoint it is difficult to come up with a positive outlook for U.S. equities. Our preferred metric for U.S. price-earnings (P/E) ratios, for example, which is based on ten-year normalized real earnings, currently stands at 25.1 , more than one standard deviation above its long-term mean, and higher than at any point other than the late 1920s to the early 1930s and late 1990s to the early 2000s (Table A). Our preference for real normalized P/Es is partly theoretical, in that the measure serves to smooth out the ups and downs of the business cycle, and thus should provide a truer read on earnings than measures based on shorter time frames, and partly practical, as normalized $\mathrm{P} /$ Es have proven far more predictive of future market returns than other measures.

Any bullish scenario must therefore begin with the assumption that stellar recent corporate earnings growth is sustainable. While this would break with historical precedent-corporate earnings today are $68 \%$ above trendline, the widest spread since 1917 (Table B)—some argue such an outcome is indeed possible. In a provocative recent analysis, for example, GaveKal Research argued that while profit margins are indeed mean-reverting on a global basis, this need not be true at a national level. In short, GaveKal argues that while U.S. corporations are concerned first and foremost with profits, Chinese companies are more interested in maximizing employment, since the biggest employers tend to get bailed out by the government when the economic cycle turns down. Thus, it may be possible for global profit margins to revert to their mean, while U.S. margins remain high (and Chinese margins low) for an extended period of time. BCA Research, meanwhile, says the United States is currently in a "long-wave upturn"-essentially, a period of rapid technological change and high productivity growth-that will enable firms to keep margins elevated. While we believe both arguments represent a bit of a stretch, we cannot dismiss them; indeed, while margins have risen dramatically over the past few years, they were actually higher than current levels for much of the 1950s (Table C).

[^0]
## Profits, Profits, Profits

If we assume recent profit growth is sustainable, it becomes significantly easier to make a bullish case for equities. Our dividend discount model, for example, says S\&P 500 earnings would need to grow roughly $8 \%$ a year over the next decade to justify current equity prices, assuming a $3 \%$ equity risk premium, risk-free rate of $4.88 \%,{ }^{3}$ and using normalized real earnings of $\$ 52$ a share (Table D). If, on the other hand, we plug in 12 -month trailing earnings of $\$ 75$ a share, earnings need only grow $4 \%$ a year for stocks to be fairly valued.

Along similar lines, Peter Bernstein recently argued that due to the recent surge in corporate earnings and dividends, stocks are now "moderately priced" and close to their long-term mean. His thesis is based on two measures designed to ferret out exactly what is currently priced into stocks. The first, called the "growth $\mathrm{P} / \mathrm{E}$, " measures what investors are paying for future earnings growth by separating the price equity investors are paying for income (i.e., dividends) from the price paid for growth. The "price of growth" is then divided by four-quarter trailing retained earnings to get the growth $\mathrm{P} / \mathrm{E}$, currently about 17 times earnings, or less than half its 1999 level ( 38 times). Bernstein also looked at dividends relative to Treasury yields; specifically, he measured how long it would take for the income from S\&P 500 dividends to equal the longterm U.S. Treasury yield based on trailing five-year dividend growth. The answer, 14.8 years, is the lowest since 1993.

Both these measures are interesting, not only because they make a constructive case for equities, but also because they illustrate our earlier point: namely, that the debate about U.S. equities comes down almost entirely to whether the recent surge in corporate earnings is sustainable. Thus, while Bernstein's measures clearly paint a brighter picture than they did five or six years ago, this is simply due to the recent explosion in corporate earnings (and the associated boost to dividend growth). Dividing the "price of growth" by trailing 12-month earnings, for example, gives an enormous weight to recent earnings, while using trailing five-year dividend growth ( $8.4 \%$, versus a long-term average of about $5.5 \%$ ) is also heavily reliant on the recent surge in earnings, not to mention the 2003 reduction in income taxes on dividends.

## It's the Economy...

While we have always shied away from economic forecasting, we find it interesting that most of the optimistic forecasts we have seen depend heavily on a continued benign (i.e., strong growth with low inflation) economic environment. BCA Research, for example, says their base case is for a "perfect landing" not just in the United States, but for the entire global economy. While this is certainly a possibility, it would represent a break with historical patterns. As we have recently discussed, ${ }^{4}$ soft landings have been the exception rather than the rule in the U.S. economy, and equity markets have tended to fall after the Fed stops raising rates.

[^1]
## Conclusion

Opinions, as they say, make markets. While our opinion on the U.S. equity market-that stocks are expensive and in a secular bear market-is unchanged, a case can be made that equities are attractive and poised to move higher. In order to accept this premise, however, one must make some very controversial assumptions. In short, in order to be bullish, investors must either assume that the historical cyclicality of earnings and the mean-reverting nature of profit margins no longer apply, or that the growing imbalances in the global economy can persist indefinitely, with U.S. corporations ramping up profits while Chinese companies indiscriminately boost spending and add workers. Further, most bullish forecasts assume, either implicitly or explicitly, that the Fed will engineer a "soft landing," enabling the U.S. economy to cruise along with solid growth and low inflation for the foreseeable future.
$\mathrm{C} \mid \mathrm{A}$


## Table B

## S\&P 500 REAL EARNINGS AND YEAR-OVER-YEAR EARNINGS GROWTH SINCE 1900

## Real Earnings



Year-Over-Year Real Earnings Growth (\%)


Sources: Calculated from data provided by Bureau of Labor Statistics, Global Financial Data, Standard \& Poor's, and Thomson Financial.

Notes: Graphs for real earnings and price levels are shown in logarithmic scales. Real price levels are calculated based on August 2006 dollars. Data are through August 31, 2006. Prior to 1968, earnings are reported quarterly by Global Financial Data. Since January 31, 1968, data are reported monthly by Thomson Financial.

C|A
Table C
CORPORATE PROFIT MARGINS
January 1, 1947 - June 30, 2006

Source: Bureau of Economic Analysis.
Notes: Corporate profit margins are calculated by dividing corporate profits before tax by the gross value added of corporate business. All data are seasonally adjusted at annual rates. Second quarter 2006 data is preliminary.

CAMBRIDGE ASSOCIATES LLC
Table D

# S\&P 500 DIVIDEND DISCOUNT MODEL VALUATIONS UNDER VARYING ASSUMPTIONS 

## S\&P 500 Fair Value and Percentage Over- (Under-) Valued Under Varying Equity Risk Premium, Earnings, and Earnings Growth Rate Assumptions

| Equity Risk <br> Premium |  | Vations U | g 12-Mon | railing | ting Ea | s of \$82 ns for N | n Years |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1\% | 3\% | 5\% | 7\% | 9\% | 11\% | 13\% | 15\% |
| 2\% | $\begin{gathered} 1,696 \\ (23 \%) \end{gathered}$ | $\begin{gathered} 2,026 \\ (36 \%) \end{gathered}$ | $\begin{gathered} 2,417 \\ (46 \%) \end{gathered}$ | $\begin{gathered} 2,878 \\ (55 \%) \end{gathered}$ | $\begin{gathered} 3,420 \\ (62 \%) \end{gathered}$ | $\begin{gathered} 4,057 \\ (68 \%) \end{gathered}$ | $\begin{gathered} 4,803 \\ (73 \%) \end{gathered}$ | $\begin{gathered} 5,675 \\ (77 \%) \end{gathered}$ |
| 3\% | $\begin{gathered} 1,129 \\ 15 \% \end{gathered}$ | $\begin{aligned} & 1,338 \\ & (3 \%) \end{aligned}$ | $\begin{gathered} 1,584 \\ (18 \%) \end{gathered}$ | $\begin{gathered} 1,873 \\ (30 \%) \end{gathered}$ | $\begin{gathered} 2,213 \\ (41 \%) \end{gathered}$ | $\begin{gathered} 2,611 \\ (50 \%) \end{gathered}$ | $\begin{gathered} 3,076 \\ (58 \%) \end{gathered}$ | $\begin{gathered} 3,618 \\ (64 \%) \end{gathered}$ |
| 4\% | $\begin{array}{r} 754 \\ 73 \% \end{array}$ | $\begin{array}{r} 882 \\ 48 \% \end{array}$ | $\begin{array}{r} 1,033 \\ 26 \% \end{array}$ | $\begin{array}{r} 1,209 \\ 8 \% \end{array}$ | $\begin{aligned} & 1,415 \\ & (8 \%) \end{aligned}$ | $\begin{gathered} 1,655 \\ (21 \%) \end{gathered}$ | $\begin{gathered} 1,935 \\ (33 \%) \end{gathered}$ | $\begin{gathered} 2,260 \\ (42 \%) \end{gathered}$ |


| Equity Risk Premium | Valuations Using 12-Month Trailing Reported Earnings of \$75 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Valuations Under Various Earnings Growth Assumptions for Next Ten Years |  |  |  |  |  |  |  |
|  | 1\% | 3\% | 5\% | 7\% | 9\% | 11\% | 13\% | 15\% |
| 2\% | $\begin{gathered} 1,553 \\ (16 \%) \end{gathered}$ | $\begin{aligned} & 1,855 \\ & (30 \%) \end{aligned}$ | $\begin{gathered} 2,213 \\ (41 \%) \end{gathered}$ | $\begin{gathered} 2,635 \\ (51 \%) \end{gathered}$ | $\begin{gathered} 3,132 \\ (58 \%) \end{gathered}$ | $\begin{aligned} & 3,715 \\ & (65 \%) \end{aligned}$ | $\begin{gathered} 4,399 \\ (70 \%) \end{gathered}$ | $\begin{gathered} 5,197 \\ (75 \%) \end{gathered}$ |
| 3\% | $\begin{array}{r} 1,034 \\ 26 \% \end{array}$ | $\begin{array}{r} 1,225 \\ 6 \% \end{array}$ | $\begin{aligned} & 1,450 \\ & (10 \%) \end{aligned}$ | $\begin{aligned} & 1,715 \\ & (24 \%) \end{aligned}$ | $\begin{gathered} 2,026 \\ (36 \%) \end{gathered}$ | $\begin{gathered} 2,391 \\ (45 \%) \end{gathered}$ | $\begin{gathered} 2,817 \\ (54 \%) \end{gathered}$ | $\begin{gathered} 3,313 \\ (61 \%) \end{gathered}$ |
| 4\% | $\begin{array}{r} 782 \\ 67 \% \end{array}$ | $\begin{array}{r} 919 \\ 42 \% \end{array}$ | $\begin{array}{r} 1,080 \\ 21 \% \end{array}$ | $\begin{array}{r} 1,270 \\ 3 \% \end{array}$ | $\begin{gathered} 1,491 \\ (13 \%) \end{gathered}$ | $\begin{gathered} 1,750 \\ (26 \%) \end{gathered}$ | $\begin{gathered} 2,052 \\ (36 \%) \end{gathered}$ | $\begin{gathered} 2,404 \\ (46 \%) \end{gathered}$ |


| Equity Risk Premium | Valuations Using Normalized Real Earnings of \$52 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Valuations Under Various Earnings Growth Assumptions for Next Ten Years |  |  |  |  |  |  |  |
|  | 1\% | 3\% | 5\% | 7\% | 9\% | 11\% | 13\% | 15\% |
| 2\% | $\begin{array}{r} 1,077 \\ 21 \% \end{array}$ | $\begin{array}{r} 1,287 \\ 1 \% \end{array}$ | $\begin{aligned} & 1,535 \\ & (15 \%) \end{aligned}$ | $\begin{gathered} 1,827 \\ (29 \%) \end{gathered}$ | $\begin{gathered} 2,172 \\ (40 \%) \end{gathered}$ | $\begin{gathered} 2,577 \\ (49 \%) \end{gathered}$ | $\begin{gathered} 3,050 \\ (57 \%) \end{gathered}$ | $\begin{gathered} 3,604 \\ (64 \%) \end{gathered}$ |
| 3\% | $\begin{array}{r} 717 \\ 82 \% \end{array}$ | $\begin{array}{r} 850 \\ 53 \% \end{array}$ | $\begin{array}{r} 1,006 \\ 30 \% \end{array}$ | $\begin{array}{r} 1,190 \\ 10 \% \end{array}$ | $\begin{aligned} & 1,405 \\ & (7 \%) \end{aligned}$ | $\begin{aligned} & 1,658 \\ & (21 \%) \end{aligned}$ | $\begin{gathered} 1,953 \\ (33 \%) \end{gathered}$ | $\begin{gathered} 2,297 \\ (43 \%) \end{gathered}$ |
| 4\% | $\begin{array}{r} 542 \\ 141 \% \end{array}$ | $\begin{array}{r} 637 \\ 105 \% \end{array}$ | $\begin{array}{r} 749 \\ 74 \% \end{array}$ | $\begin{array}{r} 881 \\ 48 \% \end{array}$ | $\begin{array}{r} 1,034 \\ 26 \% \end{array}$ | $\begin{array}{r} 1,214 \\ 7 \% \end{array}$ | $\begin{aligned} & 1,423 \\ & (8 \%) \end{aligned}$ | $\begin{gathered} 1,667 \\ (22 \%) \end{gathered}$ |

## Other Key Assumptions

S\&P 500 price of $\$ 1,303.82$
Long-Term Earnings Growth of 5.0\%
Risk-Free Rate of $4.88 \%$, the yield on the 30-year Treasury on August 31, 2006
Sources: AltaVista Independent Research, Inc., Standard \& Poor's, Standard \& Poor's Compustat, Thomson Datastream, Thomson Financial, and U.S. Treasury.

Notes: Normalized earnings are calculated by dividing the current index value by the annualized average real earnings for the trailing ten years. CPI-U data are through July 31, 2006. The Treasury ceased publication of the 30 -year constant maturity series on $2 / 18 / 02$ and reintroduced it on $2 / 9 / 06$. During that period, the 30 -year Treasury yield is an extrapolation of the Long-Term Average Rate series. The price-earnings ratio using normalized earnings is the real price divided by the trailing ten-year average of real earnings.

178 m


[^0]:    ${ }^{1}$ Please see our May 2006 U.S. Market Commentary: Prospects for U.S. Equities Remain Bleak.
    ${ }^{2}$ For a detailed discussion of this issue, please see our June 2006 Global Market Commentary: A Closer Look at Emerging Markets Equity Valuations.

[^1]:    ${ }^{3}$ Thirty-year Treasury yield is as of August 31, 2006.
    ${ }^{4}$ Please see our April 2006 U.S. Market Commentary: What Really Happens When the Fed Stops Tightening?

