CAMBRIDGE ASSOCIATES LLC

U.S. MARKET COMMENTARY

MUCH ADO ABOUT NOTHING

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Much Ado About Nothing

"Nobody ever knows what the expected Equity Risk Premium is or will be at any given moment."—Peter Bernstein, *Economics and Portfolio Strategy,* October 1, 2006.

Notwithstanding Peter Bernstein's blunt assessment, estimates of the expected equity risk premium (ERP) have been flying fast and furious in recent months. Indeed, for something that is inherently unmeasurable, there sure are a lot of people trying to measure it. In our opinion, attempts to measure the future (ex-ante) ERP are *at best* an extremely rough guide to future relative returns between stocks and bonds; at worst, they mislead investors by implying a level of specificity impossible to achieve. Perhaps most importantly, investors should be careful to note the difference between absolute and relative valuations. Cheap *relative* valuations should not be used to forecast strong *absolute* performance.

Garbage In, Garbage Out

For all the effort that goes into divining it, the concept of the ERP is disarmingly simple. Equities are riskier than bonds, as dividends are not guaranteed, companies go out of business, and earnings are volatile, while Treasuries are backed by the full faith and credit of the U.S. government. Thus, in order to commit capital to equities, investors must expect to achieve higher returns than those available from bonds. Historical returns have borne this out: over the long term, equities have outperformed bonds by somewhere in the neighborhood of 400 basis points (bps), depending on specific timeframe, as well as which equity and bond indices are used (Table A). Over the short term, the realized ERP is inherently unstable and unpredictable: from 1900-2006, the annual excess return of stocks over bonds averaged 5.8% (4.1% geometrically compounded), but with a standard deviation of 18.5. Indeed, over the past ten years, the ERP has been negligible (0.7%), with annual figures ranging from 27.7% in 1999, to -37.6% in 2002.

While it is quite simple to measure the *ex-post* ERP, the same cannot be said of *ex-ante* calculations. Indeed, everyone pretty much agrees on *what* they are trying to measure, but there is surprisingly little agreement on *how* to do so. Still, virtually all models today show U.S. equities to be cheap relative to bonds. Tables B through D, for example, show three of the more common metrics, all of which currently sport historically high readings (i.e., stocks should offer large excess returns over bonds going forward). Further, over reasonably long timeframes (e.g., 15 years), high readings have correlated fairly well with strong *relative* returns for equities (Table E).

The problem, as we see it, is that these models are all extremely dependant on recent strength in corporate earnings (and associated high earnings yields), as well as the current low level of nominal interest rates. Indeed, one of the interesting features of the current equity rally is that ex-ante ERP measurements have actually *risen* even as markets have posted strong gains. Clearly this has been due to the sharp rise in corporate profits over the past few years; whether it indicates investors are less enthusiastic about equities than bonds is more of an open question.

What Do the Models Say?

Our in-house dividend discount model shows the S&P 500 to be cheaper today, with a price-earnings (P/E) of 18 (on record profits, no less), than it was in 1982, when the S&P traded at a P/E of less than 10 (on cyclically depressed earnings), and that marked the beginning of the great bull market that peaked in 2000. The reason, of course, is that current long-term nominal interest rates are hovering near post-1950 lows, while in 1982 they were extremely high. Indeed, it is tautological that any measure that compares equities to bonds will tend to show equities as more attractive when bond yields are low; the question is whether it is reasonable to expect yields to stay low.

As we have discussed in the past, the majority of economists tend to be unable to forecast even the *direction* of interest rates correctly; thus, to presume to know the future *level* of interest rates is unrealistic in the extreme. All we can really say on this score is that declining bond yields have been a major factor in driving equity returns since 1982; with long-term yields currently below 5%, the chances for a repeat performance going forward seem slim. We would, in fact, agree that the current low level of interest rates is likely to be a positive for the *relative* performance of equities going forward, but whether this will translate to strong *absolute* performance is less clear. In our view, there are a number of reasonable scenarios (e.g., profits reverting to the mean while interest rates rise) under which equities could do quite well in relative terms, but poorly in absolute terms.

Conflicting Reports

As mentioned above, it is quite simple to measure the ex-post ERP. However, analysis of historical relative performance differentials fails to provide any concrete conclusions. For example, the real ex-post ERP was 3.5% over the period 1900-51, but 4.9% over the period 1952-2006, despite the fact that bonds generated nearly identical annual real returns in both periods (2.4% from 1900-51, and 2.5% from 1952-2006). The first period included two world wars, a depression, and highly experimental monetary policy, while the second period proved far more stable, both economically and politically, than investors' *experience* had led them to expect. As a result, P/E multiples, which declined during the first period (from 14.3 to 9.7), rose substantially during the second period (from 9.7 to 17.9).

A reasonable assumption, then, would be that the ERP is primarily driven by equity returns. However, over the long term, *poor bond returns* have been responsible for much of the ex-post ERP. In a recent paper, Bernstein showed that 60% of the accumulated risk premium since 1925 was realized in the 24-year period from 1945-69, when equities returned 12% and bonds 0.9%, compared to full-period (January 1925 through August 2006) returns of 10.3% and 5.4%, respectively. In his words: "The bond market makes all the difference. You earn a big Equity Risk Premium only when the bond market is heading into the tank." In our view, neither reading is "correct." Rather, the difference in timeframes is extremely important. We continue to expect that the primary driver of the ERP will shift over time.

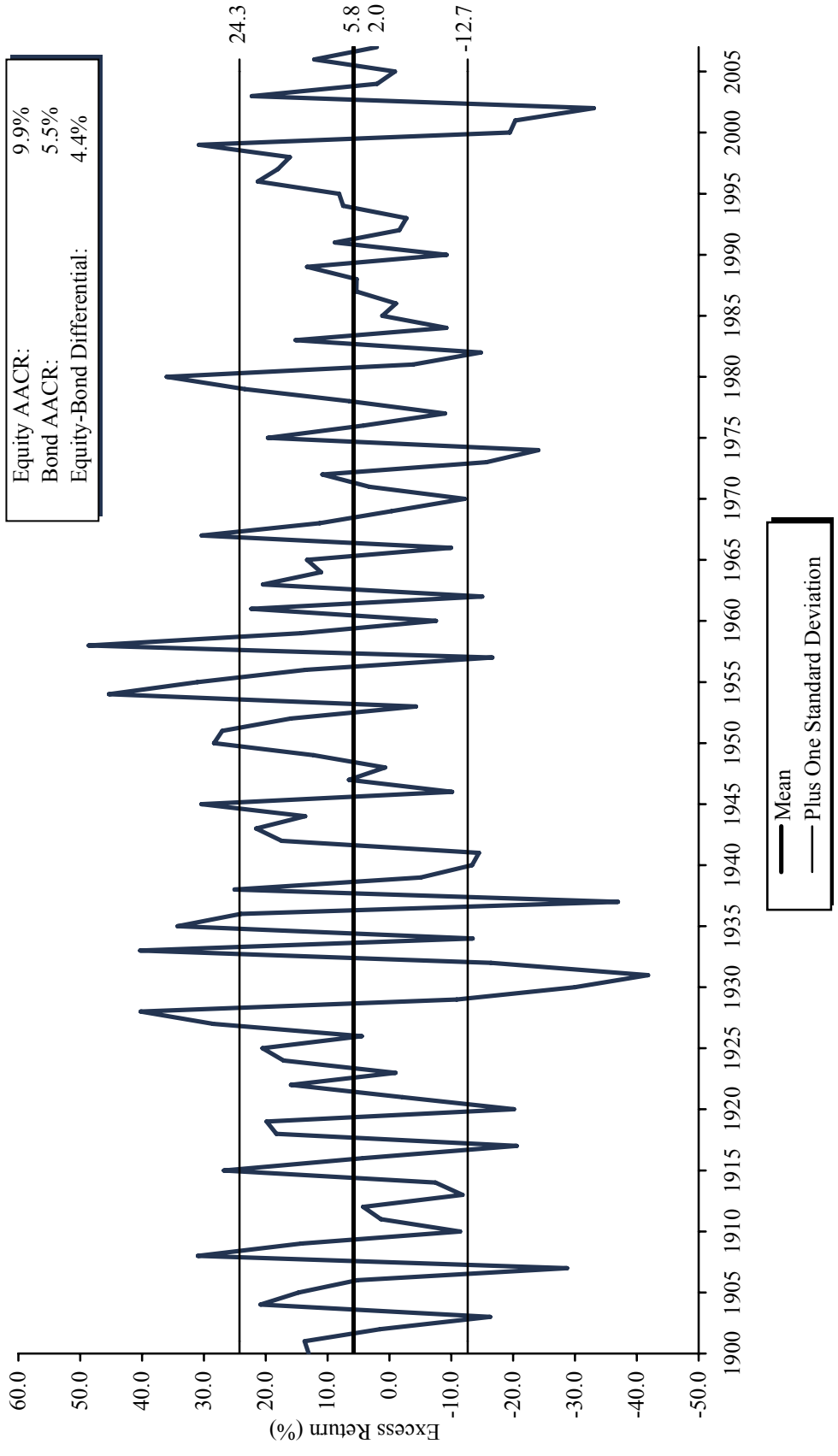
Conclusion

The concept of the ERP is a useful one, and investors should certainly take relative valuations into account when making asset allocation decisions. However, investors should also recognize the significant limitations of ex-ante ERP measurements, and not put too much stock in any one model that claims to deliver "the answer." Finally, it is important to separate *relative* valuations from *absolute* metrics. While by most measures, the ERP suggests that stocks are attractively valued relative to bonds, we regard both asset classes as overvalued today. As the old Wall Street adage goes, "You can't eat relative performance."

Table A

EX-POST ANNUAL EXCESS RETURN OF EQUITIES OVER BONDS

1900-2007



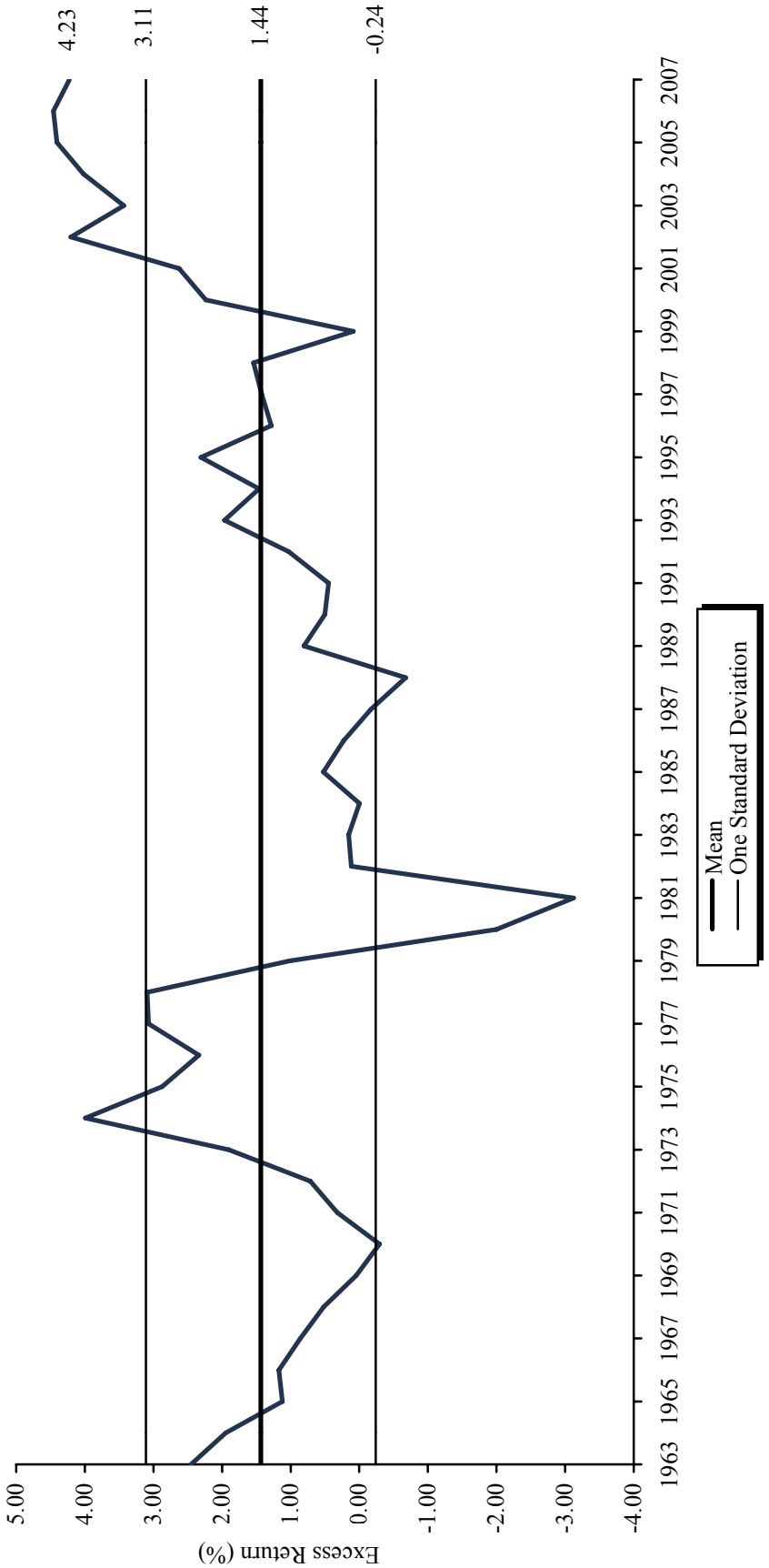
Sources: Citigroup Global Markets and Standard & Poor's.

Notes: Ex-post annual excess return is based on the S&P 500 and the Citigroup High-Grade Bond Index (Long-Term AAA/AA Corporates). Data for 2007 are through January 31.

Table B

EX-ANTE EXCESS RETURN OF EQUITIES OVER BONDS

1963-2007



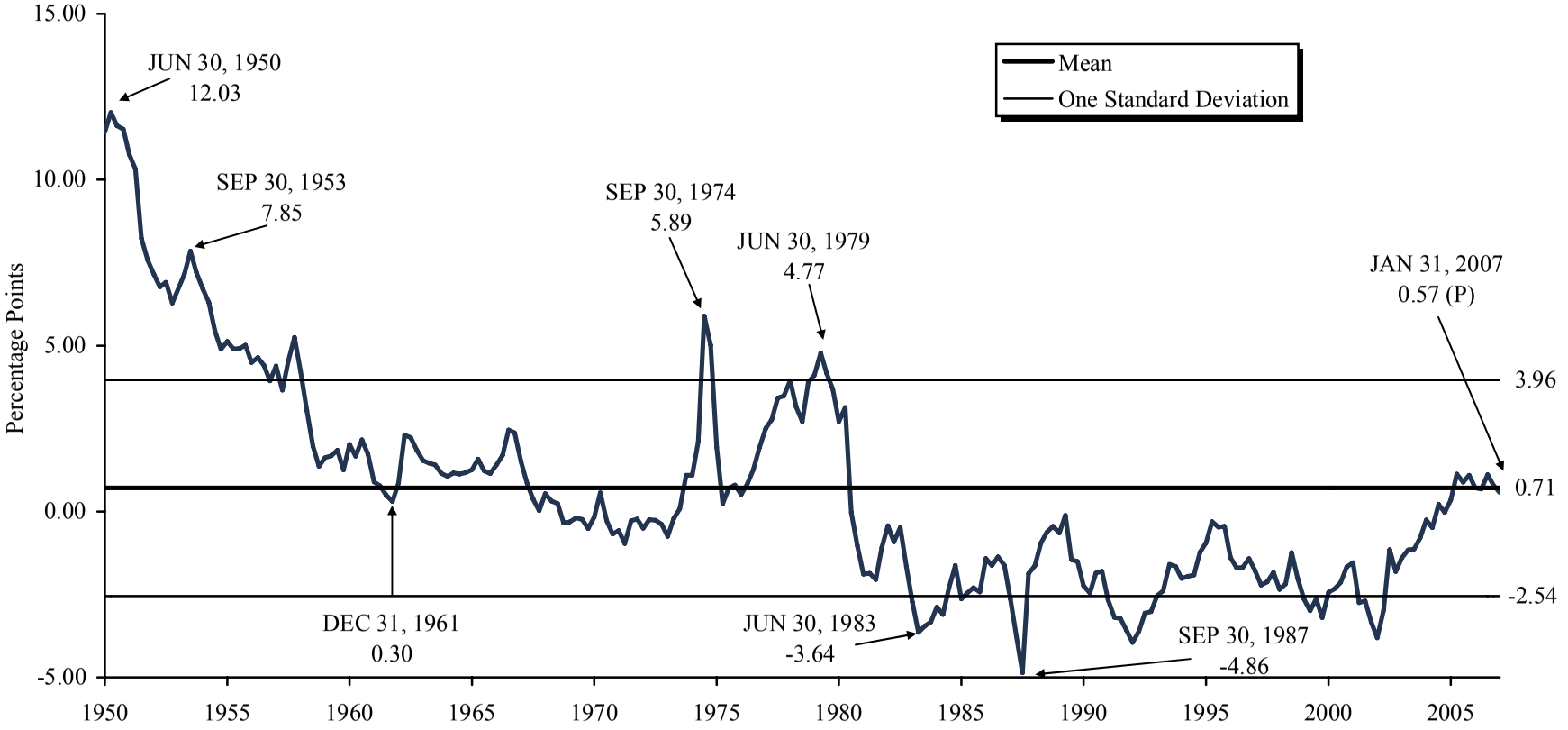
Sources: Citigroup Global Markets and Standard & Poor's.

Notes: Risk premium is calculated by Cambridge Associates LLC Dividend Discount Model using the S&P 500 and Citigroup High-Grade Bond Index (Long-Term AAA/AA Corporates). Data for 2007 are through January 31.

Table C

SPREAD BETWEEN S&P 500 EARNINGS YIELDS AND 30-YEAR TREASURY BOND YIELDS

1950-2007



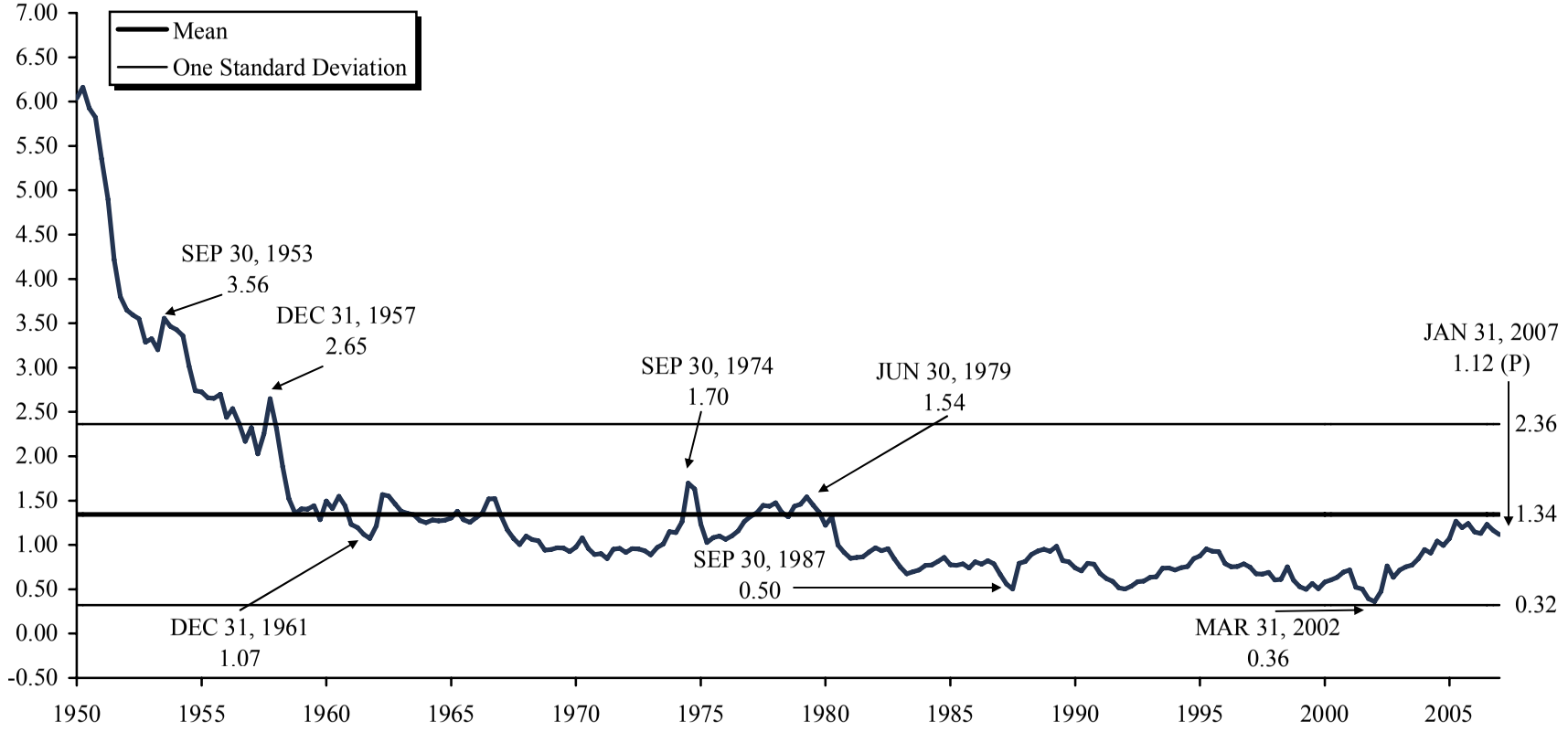
Sources: Calculated from data provided by Citigroup Global Markets, Factset Research Systems, Standard & Poor's, Standard & Poor's Compustat, Thomson Datastream, and *The Wall Street Journal.*

Notes: (P) Preliminary. Data from first quarter 1950 through January 31, 2007. Earnings yields are based on 12-month trailing earnings. 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.

Table D

RATIO OF S&P 500 EARNINGS YIELDS TO 30-YEAR TREASURY BOND YIELDS

1950-2007



Sources: Calculated from data provided by Citigroup Global Markets, Factset Research Systems, Standard & Poor's, Standard & Poor's Compustat, Thomson Datastream, and *The Wall Street Journal*.

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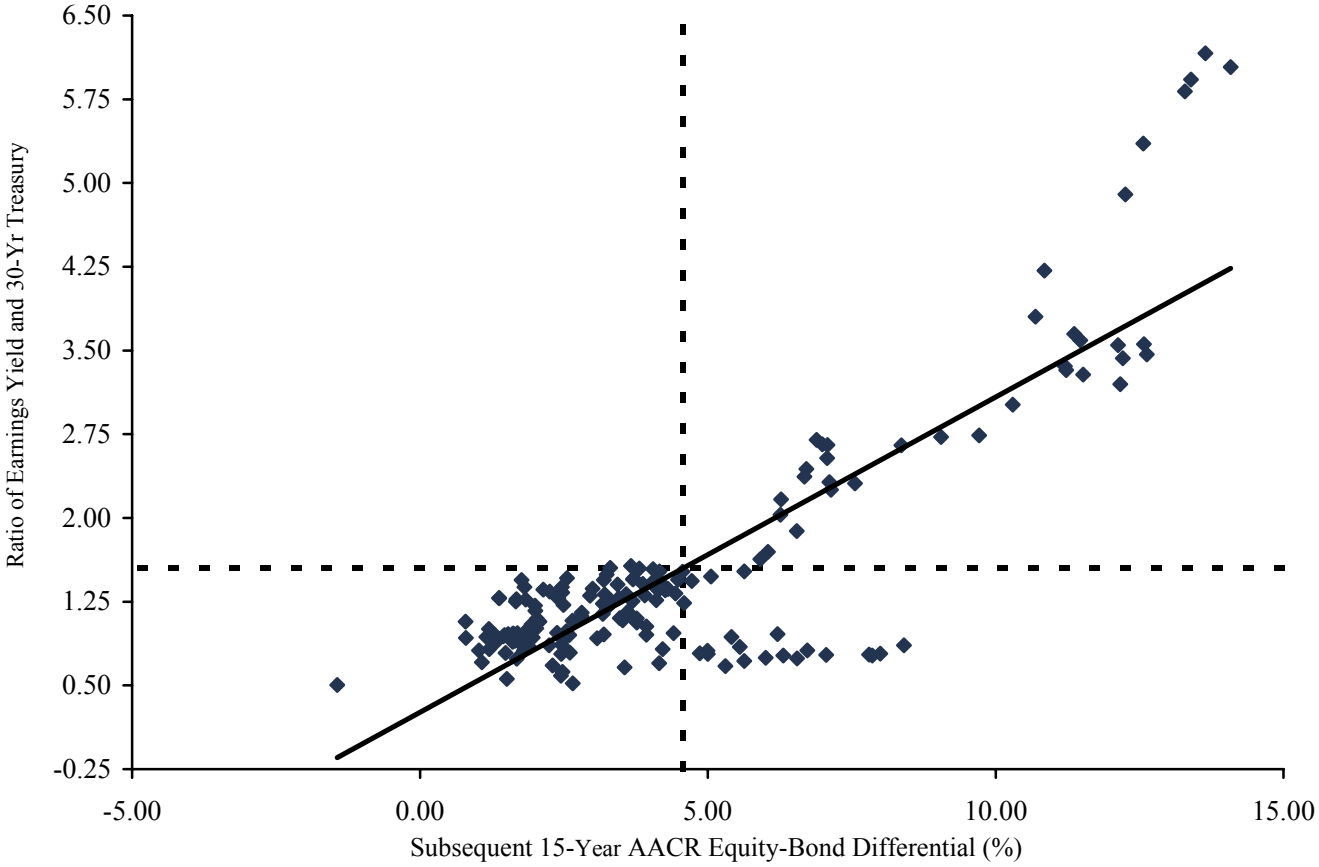
Table E

RELATIONSHIP BETWEEN RATIO OF S&P 500 EARNINGS YIELDS TO 30-YEAR TREASURY BOND YIELDS AND SUBSEQUENT EQUITY AND BOND 15-YEAR AACR

First Quarter 1950 - Fourth Quarter 1991



	Ratio of Earnings Yield and 30-Yr Treasury				Sub 15-Yr AACR (%) Equity-Bond Differential			
Ratio Quartiles	Mean	High	Low	Std Dev	Mean	High	Low	Std Dev
First	0.77	0.91	0.50	0.10	3.57	8.41	-1.44	2.41
Second	1.02	1.21	0.92	0.08	2.54	6.21	0.79	1.19
Third	1.35	1.52	1.22	0.08	3.26	5.05	1.38	1.03
Fourth	3.06	6.16	1.52	1.32	8.94	14.08	3.30	3.21
Total	1.55	6.16	0.50	1.11	4.58	14.08	-1.44	3.33

Sources: Citigroup Global Markets, Standard & Poor's, Standard & Poor's Compustat, Thomson Datastream, and *The Wall Street Journal.*

Notes: 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.