

Beta and Return

In this article, they believe Fama is misstating and misinterpreting the conclusions in Fama and French that the slope of the line linking expected return and beta is positive. When a researcher seeks to conduct a study, he or she will employ a variety of explanatory elements, time periods, and models; this process is known as data mining. Fama and French continue to investigate the small-firm impact and discover similar findings on a substantially overlapping data set. Whether or not they adjust for beta, the Banz study finds no size effect at all. Nonetheless, they assert in their study that size is one of the characteristics that captures cross-sectional variation in average stock returns. Fama and French offer no explanations for the relationship between size and expected return. They may say that small enterprises are continually underpriced because they are overlooked in a market dominated by large institutional investors, but they do not provide us with rationale. The beta component appears to be the most likely to be valued. Create the beta factor by constructing a diversified portfolio that is long in low-beta stocks and short in smaller quantities of high-beta stocks, resulting in a beta of about zero. The empirical evidence for the beta component having excess returns is stronger than for the small-stock factor or the book-to-market equity factor. Borrowing constraints may cause low-beta stocks to outperform the CAPM in terms of expected returns. However, if we try to discriminate among these theories using stock returns, we run the risk of data mining because the tests used to distinguish may mistakenly favor one explanation over another in a given period. BJS adopted a fairly simple portfolio strategy to minimize the data mining problem. They chose assets based on historical beta estimates, and then employed a large number of securities to diversify out the characteristics that were not connected to beta. Yet, the beta of this approach may be substantially associated with both total risk and residual risk across stocks. It explored computing the whole covariance matrix for our stock population and using it to improve the efficiency of a test when doing the BJS research. To update the BJS study, they used monthly data from the University of Chicago's Center for Research in Security Prices from 1926 to 1991. Because the stocks in the portfolio are constantly changing, the portfolio method is especially effective when examining data over such a lengthy period. This portfolio captures the relative performance of stocks with varying betas. Because stocks that differ in beta tend to differ

in other ways, it combines the effects of all the beta-related attributes. BJS chose stocks and weighed them based on information that was available at the time. This removes prejudice and makes the results easier to understand and interpret. Because they review the portfolio over time, we can adjust to changes in the stock list and covariances.

The Equity Premium A Puzzle

The goal of this study is to see if the large historical difference in the average return on equity that has far outpaced the average return on short-term virtually default-free debt can be explained by models that abstract from transaction costs, liquidity constraints, and other frictions that are absent in the Arrow-Debreu setup. Per capita consumption has increased over time, according to this study. There is one productive unit producing the perishable consumer goods and one competitively traded equity share. Mehra and Prescott show that if the stand-in household consumes Y every period, this is both necessary and sufficient for expected utility to exist. Furthermore, the statistics that are most likely to be resistant to the modeling specification are the means across time. For the US economy, the sample values were 0.018, 0.036, and -0.14, respectively. The values of the obtained parameters were $\mu = 0.018$, $\delta = 0.036$, and $\phi = 0.43$. Arrow outlines several studies and concludes that relative risk aversion in relation to wealth is nearly constant and thus alpha should be around one. Kydland and Prescott discovered that a number between one and two was required to replicate the observed relative variabilities of consumption and investment. Altug believes the parameter is close to zero. Kehoe found figures that were close to one. Hildreth and Knowles also obtain estimates ranging from one to two. Tobin and Dolde find that a value of 1.5 best fits the observed life cycle savings patterns. They limit the value of alpha to a maximum of 10. This is a significant constraint, because with high alpha, practically any pair of average equity and risk-free returns may be attained by making minor adjustments to the consumption process. The results were substantially the same for many varied consuming processes with a less than ten, provided that the mean and variances of growth rates approximated the historically recorded values. Errors in measuring the inflation rate are one source of potential concerns. These inaccuracies have no effect on the calculated risk premium since they affect both the true risk-free rate and the equity rate by the same amount. A potentially

more serious issue is that these inaccuracies skew our estimates of consumption growth and the risk-free real rate. A second measuring issue occurs as a result of tax issues. The theory implicitly takes into account effective after-tax returns that differ between income levels. Tax rates were modest in the early portion of the century. The low real rate and sizable stock risk premium hold for after-tax returns for all income classes in the latter era. There is just one sort of capital, when in reality, there is a virtual continuum of capital types with vastly variable risk characteristics. A typical firm's stock, when traded on the stock exchange, entitles its owner to the residual claim on output after all other claims, including wages, have been paid. The share of output accruing to stockholders varies significantly more than that accruing to holders of other rights against the firm.