

Common Risk Factors in the Returns on Stocks and Bonds

There are two types of explanatory variables in the time-series regression inputs. This opens up the possibility of intriguing testing to see if factors essential in stock returns may be used to explain bond returns and vice versa. The excess returns on two government bond portfolios and five corporate bond portfolios were utilized as dependent variables in the time-series regressions. Government bond portfolios have maturities ranging from one to five years and six to ten years. The five corporate bond portfolios for Moody's rating categories Aaa, Aa, A, Baa, and LG are from Ibbotson Associates' corporate bond module. All of the average excess bond returns are less than 0.15 percent each month, and only one of the seven exceeds 1.5 standard deviations from zero. There is little evidence that average returns on government bonds increase with maturity, long-term corporate bonds have higher average returns than government bonds, or average returns on corporate bonds are higher for lower-rating groups. Excess returns on 25 portfolios based on size and book-to-market equity as dependent variables provide a wide range of average excess returns, ranging from 0.32 percent to 1.05 percent per month for equities. The portfolios support the Fama-French evidence of a negative relationship between size and average return and a higher positive relationship between average return and book-to-market equity. They employ size and BE/ME portfolios to evaluate if the imitating portfolios SMB and HML capture common characteristics in stock returns linked to size and book-to-market equity. Portfolios constructed on the basis of size and BE/ME will also provide a wide range of average returns that can be explained by competing asset-pricing formulae. The average monthly value of $RM-RF$ is 0.43 percent. The average SMB return per month is approximately 0.27 percent. The book-to-market factor HML generates an average monthly premium of 0.40 percent, which is significant in both practical and statistical terms. The average risk premiums for term-structure factors are insignificant in comparison to those for stock-market components. TERM and DEF are typically 0.06 percent and 0.02 percent every month, respectively. DEF cannot explain the size effect in average stock returns. The R-squared value is 0.38, owing primarily to TERM and DEF. The three stock-market factors, $RM-RF$, SMB, and HML, provide the best-behaved intercepts in the F-test. Despite its marginal rejection in the F-tests, they believe the three-factor model performs well on a cross-section of average stock returns. To summarize, the findings reveal that five factors explain a significant portion of the diversity in bond and stock returns, as well as the cross-section of average returns. The selection of any particular version of the factors is rather discretionary in the absence of a theory that specifies the exact form of the state variables or common factors in returns. As a result, detailed accounts about the slopes and average premiums associated with specific variations of the components are suggestive but never conclusive.