

Common risk factors in the returns on stocks and bonds

The paper is to identify the five common risk factors in the returns on stocks and bonds. For the stock-market factors, the factors are an overall market factor, factors related to firm size, and book-to-market equity. Bonds-market factors consist of maturity and default risks.

The paper uses the Sharpe of the market (β_s) together with return variables including size, leverage, earning/price (E/P) and book-to-market equity. Then, extending the concept from the asset-pricing tests in Fama and French in to 3 ways: 1) It is to considered the stocks as the only asset type. If both markets are integrated, this model should explain the bond returns including Government and corporate bonds. 2) This method is to apply size and book-to-market equity and extend the list to term-structure variables to determine whether the both add factors have any effect on bondreturn and stockreturn if the market is integrated. 3) This is to use cross-section regressions to regress on variables to explain the average returns excluding bonds since they have no obvious meaning on the explanatory variable such as size and book-to-market equity.

In addition, the paper also apply the time-series regression to variable related average returns to proxy for sensitivity to common and slope and R^2 values to show whether mimicking portfolios for risk factors and to use excess returns as dependent variables.

The result is that the stocks under portfolio are made mimicing the risk factor related to size and BE/ME capture strong common variation in returns and determined that size and book-to-market equity whether both are the good proxy for sensitivity to common risk factors in stock returns. The intercepts from the 3-factor regressions including express market return and mimicking returns for size and BE/ME are near 0, implying that these risk factors are a good proxy on explaining the cross section of average stock returns.

In conclusion, the results from all tests show that five factors illustrate that all of them are able to explain on 1) and 2). There is appeal in the simple way for mimicking returns for both market factors. The choice of factors is motivated by empirical experience. The choice of any version is random but never definitive.

For applications, it can be used on the selecting portfolios, evaluating portfolio performance, measuring abnormal returns in event studies and estimating the cost of capital as it provided the good explanation of the cross-section on average returns.