

Common Risk Factors in the Returns on Stocks and Bonds

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There are five common risk factors in the returns on stocks and bonds. It is classified into two market variables which are stock and bond market variables. For the stock market consists of three variables which are an overall market factor, firm size factors, and book-to-market equity. The bond market consists of two variables related to maturity and default risks.

Stock market factors play a minor effect in government and corporate bond returns, with the exception of low-grade corporate bonds. However, the stock and bond markets are connected through two term-structure components that are shared.

A cross-section of typical US stock returns reveals that there is a little correlation with SLB CAPM market betas or ICAPM consumption betas.

Summary :

Regressions of excess returns on government and corporate bonds on the stock-market returns, RMO SMB and HML, and the bond-market returns, TERM and DEF :

$$R(t) - RF(t) = a + bRMO(t) + sSMB(t) + hHML(t) + mTERM(t) + dDEF(t) + e(t)$$

RMO, SMB, HML, TERM, and DEF regressions used to explain stock and bond returns. It provides a reasonable description of the five factors in return volatility and cross-sectional average returns.

The average RMO return is interpreted as the premium for being a stock and sharing general stock-market risk.

TERM clarifies for similar variation in the returns on all the stock portfolios, while DEF captures less common variation in returns. However, the expected TERM and DEF returns vary through time with business conditions.

TERM and DEF, with the exception of low-grade corporate bonds, reflect nearly all of the typical variation in bond returns in the five-factor regressions. As a result, the low average excess returns on bonds correspond to the low average TERM and DEF returns. Moreover, we can deduce that equities share almost all of the variation in high-grade corporate bonds because the TERM and DEF slopes for corporate bonds are similar to the slopes for stocks.

The slopes on RMO, TERM, and DEF in the five-factor regressions above do not differ much across the 25 stock portfolios. Therefore, the excess market return adequately captures the roles of RMO, TERM, and DEF in stock returns.

The common size-related factor in returns is critical in explaining why small-stock returns are so much more volatile than large-stock returns.

HML tends to make low-BE/ME stock returns more volatile. The returns on the lowest -BE/ME portfolios are more volatile than the highest-BE/ME returns within the size quintiles.

According to Fama and French (1992b), HML reflects volatility in a risk factor associated with relative earnings performance over time. Because their negative slopes on HML imply that they hedge against the common factor in returns related to relative profitability, therefore HML decreases the average returns on low-BE/ME stocks.

The model can be used in any application that requires estimates of expected stock returns. Selecting portfolios, evaluating portfolio performance, measuring unexpected returns in event studies, and determining the cost of capital are all on the list. The applications depend on the proof that five factors accurately describe the cross-section of average returns.