Fixed Income

When Do Bond Markets Reward Investors for Interest Rate Risk?

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Fixed-income portfolio managers pay considerable attention to risk/return tradeoffs. They devote most of their effort, however, to developing interest rate risk measures and risk control tools. They have not analyzed the other side of the tradeoff, the potential reward, nearly as much.

In this article, we will examine what historical data can tell us about the reward for interest rate risk. We show empirical evidence from several bond markets and discuss the implications for interest rate risk management.

Investors often measure interest-rate risk by the volatility of bond returns over some investment horizon — say, a month. Monthly returns of long-term bonds are highly variable, while the returns of one-month bonds are quite stable. We define the realized bond risk premium as the excess return of a long-term bond over a one-month bond. Most of the monthly excess return is unexpected — this is the risk. A small part of it is expected — this is the reward for interest rate risk; that is, the compensation that investors require and the market offers for bearing the long-term bond's volatility.

We conclude that international bond returns may be forecasted using a number of variables, including business cycle indicators, real bond yields and term spreads. We also simulate a dynamic trading strategy that appears to add substantial value. In practical terms, a borrower can use this information to identify periods of time when yields in one particular country are abnormally low.

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