

Answer on Question #38017 – Economics – Macroeconomics

Explain the inverse relationship between bond price and interest rates.

Solution

If people expect interest rates to go up, they will be willing to pay less for a bond. This makes sense for bonds with coupons and zero coupons. If people expect interest rates to go down, they will be willing to pay more for the bond if the coupon is greater than the expectation.

An easy way to grasp why bond prices move opposite to interest rates is to consider zero-coupon bonds, which don't pay coupons but derive their value from the difference between the purchase price and the par value paid at maturity.

For instance, if a zero-coupon bond is trading at \$950 and has a par value of \$1,000 (paid at maturity in one year), the bond's rate of return at the present time

is approximately 5.26% $((1000-950) / 950 = 5.26\%)$.

For a person to pay \$950 for this bond, he or she must be happy with receiving a 5.26% return. But his or her satisfaction with this return depends on what else is happening in the bond market. Bond investors, like all investors, typically try to get the best return possible. If current interest rates were to rise, giving newly issued bonds a yield of 10%, then the zero-coupon bond yielding 5.26% would not only be less attractive, it wouldn't be in demand at all. Who wants a 5.26% yield when they can get 10%? To attract demand, the price of the pre-existing zero-coupon bond would have to decrease enough to match the same return yielded by prevailing interest rates. In this instance, the bond's price would drop from \$950 (which gives a 5.26% yield) to \$909 (which gives a 10% yield).