Bond Duration

Late last year, the Memorandum covered the concept of bond duration briefly. This time a more detailed analysis of this description of bond volatility will be provided. Additionally its importance for investors will be explored.

Duration Defined

Duration does not equate to maturity. When investors speak of 7 year bonds, the emphasis is on the maturity date, seven years hence. Not so for its duration, which varies widely based on the coupons paid out over the life of the bond.

Take, by way of example, $50,000 Par Value of a 7 year corporate bond paying a coupon of 4% per year. Each 6 months, the owner receives $1,000 for a total of $2,000 per year. Over the 7 year period the investor will receive $14,000, plus at maturity the original par value of $50,000.

Here's the way this example looks in a table:

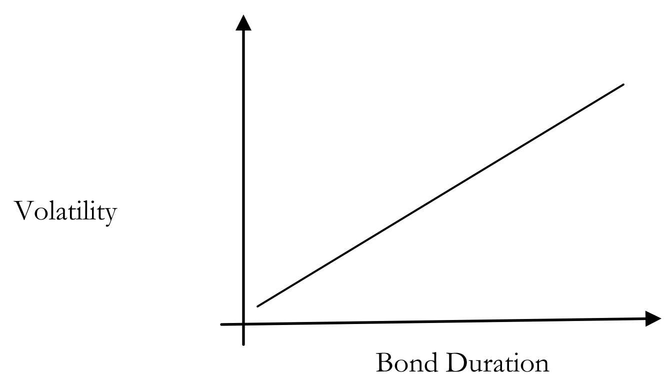
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Original Investment	$50,000						
Return of Investment							50,000
Coupon Interest	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000

The returns of interest during the bond's life means that the duration of the bond is less than 7 years and is calculated to be 6 years.

Duration Uses

As a practical matter, investors should know what happens to the value of their bonds when market interest rates change. Duration gives us this answer. Back to the example, assume that interest rates on the bonds increase 1/2 of 1%. Multiplying the duration of 6 by this 1/2 of 1% yields 3.00%. Thus the investor, if this happens, will lose 3.00% in market value of the bond. If the market rate drops 1.0%, the bonds lose 6% in market value. Now, assume that everything in the example above stays the same except for the maturity which is 20 years. The duration then becomes much greater than 6, and therefore the change in market rates adds a great deal of volatility.

Duration is affected by interest rate changes, and as this factor of bond analysis is crucial to determining values. It is on an equal footing with the credit risk of bonds.



The Future

While interest rates could fall sometime in the future, conventional wisdom suggests that a drop will not occur any time soon. According to the Federal Reserve, interest rates should begin to rise later this year. Thus a short duration on bond portfolios should be maintained, for the foreseeable future.