

**Title:** **THE FUNDAMENTAL RELATION  
BETWEEN EQUITY RETURNS AND INTEREST RATES**

**Speaker:** **ROBERT WHITELAW**  
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**Importance:** Why this matters:

Changes in interest rates affect both real corporate assets (inventory, plant & equipment, and “growth options.” They also affect fixed claims on the assets: bank debt, senior bonds and junior bonds, creating interesting interplay effects between interest rates and equities.

**Investigation:** “Speaker analyzed XXX data to address the questions yyy, zzz, etc.”

They define duration as the sensitivity of an asset’s price to changes in interest rates. Since equities effectively have short positions in the firms’ debt, when rates go up, bonds go down, and therefore the value of the equity goes up (exhibits negative duration). However, the sensitivity depends both on the amount of the firm’s debt, and its quality rating. Of course, this analysis ignores the effect of changes in interest rates on the value of the assets.

**Innovation:** Are there new techniques of interest in the data or approach to the problem?

Using a modified duration measure to put equities and debt on the same scale leads to an interesting paradigm. As interest rates rise, senior debt becomes less valuable and more risk free. Conversely junior debt (due embedded equity options) and pure equity securities become more valuable as the senior debt’s claim on assets shrinks.

**Insights:** 1-2-3, what are the three most important things the speaker offered?

1. Leverage and priority strongly influence interest rate sensitivity. This argues against the traditional approach of separating term factors from default factors. Low priority claims can have very short, even negative durations.
2. Duration increases with priority and decreases with rating. Large differences arise between investment grade and high yield.
3. Equities can be used to hedge interest rate risk. If you think interest rates are going to rise, buy highly leveraged companies that will profit when the value of their debt falls.
4. Corporations can use equity to hedge interest rate risk by selling stock when equity prices are high and vice versa.

**Audience rating: 3.77**