

Macroeconomics II

5. Financial Markets and Expectations

BSc in Economics

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The vocabulary of bond markets

- Yield to maturity on an n -year bond: the constant annual interest rate that makes the bond price today equal to the present value of future payments on the bond.

- Example:

$$P_2 = \frac{100}{(1 + i_{2t})^2} \Rightarrow i_{2t} \approx \frac{1}{2}(i_{1t} + i_{1t+1})$$

- Yield curve (term structure of interest rates): being the relationship between maturity and yield, it plots interest rates of equal credit bonds with different maturity.
- Upward slope of the yield curve (common type): short-term rates are lower than long-term rates.
 - Investors generally demand higher compensation for the added risk of lending for a longer period.
- Risk-premium: difference between the interest rate paid on a given bond and the interest rate on the bond with the best rating.
 - Junk bonds are the ones with highest default risk.

The vocabulary of bond markets

- Face value of a bond: the amount the issuer promises to pay once the bond reaches maturity.
- Discount bond: bonds that promise a single payment at maturity (the face value).
- Coupon rate: ratio of the coupon payments to the face value.
- Current yield: ratio of the coupon payment to the price of the bond.
- Arbitrage: the expected returns on two assets must be equal.
 - It implies that, for example, the price of a 2-year bond today is the present value of the expected price of the bond next year.
 - If the present value is higher than the price, one can make a profit.

The stock market and movements in stock prices

- Debt finance: bonds and loans.
 - Involves borrowing money that must be repaid over time.
 - Does not involve ownership of the company.
- Equity finance: stocks/shares that pay dividends.
 - Involves ownership of the company.
- Price of a stock today:

$$Q_t = \frac{\$D_{t+1}^e}{(1 + i_{1t} + x)} + \frac{\$Q_{t+1}^e}{(1 + i_{1t} + x)}$$

where D^e is the expected dividend and Q^e is the expected stock price.

References

- Blanchard, O. (2017). *Macroeconomics. Global Edition.* (7th ed.). Routledge.