

Bonds

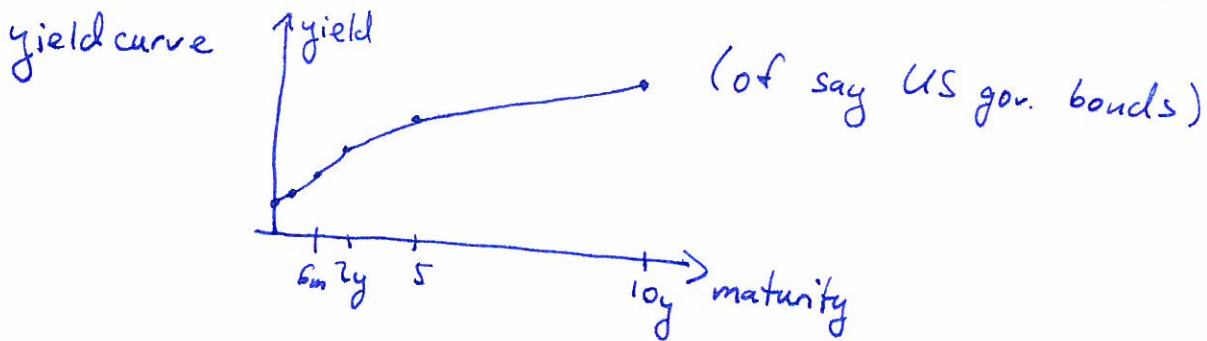
$$\text{coupon rate} = \frac{\text{coupon payments per year}}{\text{principal}}$$

Ex. 4% Treasury with \$1000 principal and coupon payments 2x a year
\$40 in coupon payments a year, \$20 in June and \$20 in Dec.

yield/interest rate — the rate (compounded annually) used to do the NPV calculation

current value of bond = NPV of future coupon and principal payments discounted at the yield rate

- typically
- coupon payments are fixed
 - coupons paid 1x, 2x, or 4x a year
 - maturities, 1mo, 2mo, 3mo, 6mo, 1y, 2y, 5y, 10y, 30y



yield depends on — maturity (length of the loan)
— govt/corporation issuing the bond
how likely are they to go bankrupt?

yield \nearrow leads to bond value (or NPV) \downarrow

5y duration means 1% increase in yield leads to -5% value of bond