

Term Structure Models

Detailed outline

1. One-factor models
 - (a) Vasicek model
 - (b) Gaussian models
 - (c) CIR model
 - (d) Affine models
2. Multi-factor models
3. Affine multi-factor models
4. HJM model of forward rates
5. Derivatives

Readings

Duffie, chapter 10.

Vasicek, O., 1977, An equilibrium characterization of the term structure, *Journal of Financial Economics* 5, 177-188.

Cox, J., J. Ingersoll, and S. Ross, 1985, A theory of the term structure of interest rates, *Econometrica* 53, 385-407.

Heath, D., R. Jarrow, and A. Morton, 1992, Bond pricing and the term structure of interest rates: A new methodology for contingent claims valuation, *Econometrica* 60, 77-105.

Duffie, D. and R. Kan, 1996, A yield-factor model of interest rates, *Mathematical Finance* 6, 379-406.

Problems

Duffie 7.1, 7.3, 7.7, and 7.8.