The Time Value of Money: Foundations

- Should I lend money to my friend?

Savings and Investment Decisions w/o Uncertainty – An Intermediate-Micro Approach

- Saving and borrowing as decisions between income streams

1. W/o capital markets:
   - crucial role of preferences and endowments

2. With capital markets: Fisher’s separation theorem
   - foundation of PV calculus

- Application to investment decisions
  - NPV Criterion
  - Shareholder Unanimity
Generalization to Many Time Periods

- Time Line

- Future Value: compounding
  - doubling rule

- Present Value: discounting

- Adding Up

- Special cases:
  1. Perpetuity
     - Application: Interest rate sensitivity of house prices
  2. Annuity
     - Annuity Factor
     - Application: Saving for College