Interest Rate Parity

(Econ 513 lecture outline)

- Uncovered interest rate parity

$$i - i^* = \frac{E^e_{t+1} - E_t}{E_t} \tag{1}$$

  Equation (1) says that nominal interest rate differential should be equal to the expected rate of depreciation of the nominal exchange rate.

- Covered interest rate parity

$$i - i^* = \frac{F_t - E_t}{E_t} \tag{2}$$

  Equation (2) says that nominal interest rate differential should be equal to the forward premium on the foreign currency.

- Empirical evidence
  - difficult to test UIRP since we do not know E^e_{t+1}
  - CIRP holds otherwise there is arbitrage

- Using IRPs to forecast E
  - evidence shows that interest rate differentials predict appreciations rather than depreciations
  - forward premiums predict appreciations rather than depreciations

- Deviations from IRP
  - risk premium

$$i - i^* = \frac{E^e_{t+1} - E_t}{E_t} + \rho_t \tag{3}$$

    Equation (3) says that interest rate differential depends on the expected rate of depreciation and the riskiness of holding domestic assets. This risk premium depends on volatility of the exchange rate, credit ratings, country risk, share of domestic assets in a portfolio, etc.

  - taxes

- An application
  - exchange rate overshooting