Chapter 6

Treasury and Agency Securities Markets

Fixed-principal securities: Treasury bills, notes and bonds
Inflation-indexed securities

Usually not callable

Treasury Inflation Protection Securities - TIPS

- Coupon rate is called the ‘real rate’ and is what investors earns above the inflation rate
- U.S. City Average All Items Consumer Price Index for All Urban
- Coupon payment and maturity value adjusted semi-annually

Consider a 3.5% TIPS with inflation rate of 3%

- Principal after six months is $1,000 \times 1.015 = 1,015$ (inflation rate)
- First Coupon payment = $1,015 \times 1.0175$ (real rate)

Inflation rate at end of first six month period is 2%

- Principal after one year is $1,105 \times 1.01 = 1,025.15$
- Second Coupon payment is $1,025.15 \times 1.0175 = 1,794.01$

Treasury Auction Process

- Regularly offers 4 week, 13 week and 26 week bills
- Irregularly offers cash management bills and 2, 5, 10 and 30 year notes/bonds

Competitive bid yields are ranking from lowest to highest
Stop-out yield = yield at which allocation is filled

Dutch Auction: all winning bidders get stop-out yield
Coupon rate set closest to stop-out in 1/8's, with price adjusted accordingly
Secondary Market - next day settlement

When-issued market

Discounted Price = \( (Y_d \times \text{Face})/360 \times t \)

Discounted Yield = \( \text{Yield}_d = D/F \times 360/t \)

Bond-equivalent yield

\[ \text{BEY} = (\text{Face} - \text{Price}) \times \frac{365}{t} \]

CD equivalent yield

\[ \text{CDEY} = \frac{360/Yd}{360 - t(Yd)} \]

Quotes on Treasury Coupon Securities

32nds
+ add 1/64 to price
additional digit is number of 1/256 to add

Accrued Interest

Pro-rated

Day count conventions
actual/actual - include coupon payment start date but not settlement

Stripped Treasury Securities

Issued synthetically by brokers

Treasury receipts - generics issued by primary dealers

STRIPS - separate trading of registered interest and principal of securities
Clear through book-entry system
Reconstitution - creating a long bond with series of strips when long bond is mispriced

Federal Agency Securities

  Rederally related
  Government sponsored