Government Bonds

Chapter 12

Government Bond Basics

- In 1999, the gross public debt of the U.S. government was more than $5 trillion, making it the largest single borrower in the world.
- The U.S. Treasury finances government debt by issuing marketable as well as non-marketable securities.

Government Bond Basics

- Marketable securities include T-bills, T-notes, and T-bonds, while non-marketable securities include U.S. Savings Bonds, Government Account Series, and State and Local Government Series.
- Another large market is the market for municipal government debt. There are more than 80,000 state and local governments in the U.S., and together they contribute about $2 trillion of outstanding debt.

U.S. T-Bills, Notes, Bonds, and STRIPS

Treasury Bills

- are short-term obligations with maturities of 13, 26, or 52 weeks,
- pay only their *face value* (or redemption value) at maturity,
- have face value denominations as small as $1,000, and
- are sold on a *discount basis* (the discount represents the *imputed interest* on the bill).

U.S. T-Bills, Notes, Bonds, and STRIPS

Treasury Notes

- are medium-term obligations, usually with maturities of 2, 5, or 10 years,
- pay semiannual coupons (at a fixed coupon rate) in addition to their face value (at maturity), and
- have face value denominations as small as $1,000.

U.S. T-Bills, Notes, Bonds, and STRIPS

Treasury Bonds

- are long-term obligations with maturities of more than 10 years (usually 30 years),
- pay semiannual coupons (at a fixed coupon rate) in addition to their face value (at maturity), and
- have face value denominations as small as $1,000.

U.S. T-Bills, Notes, Bonds, and STRIPS

Treasury STRIPS (Separate Trading of Registered Interest and Principal of Securities)

- are derived from 10-year T-notes and 30-year T-bonds (e.g. a 30-year T-bond can be separated into 61 strips - 60 semiannual coupons + a single face value payment), and
- are effectively zero coupon bonds (zeroes), so the YTMs are the interest rates the investors will receive if the bonds are held until maturity.

U.S. Treasury Auctions

- The Federal Reserve Bank conducts regularly scheduled auctions for T-bills, notes, and bonds.

General Auction Pattern for U.S. Treasury Securities as of 2001

Security	Purchase Minimum	Purchase in Multiples of	General Auction Schedule
4-week bill	$1,000	$1,000	Weekly
13-week bill	1,000	1,000	Weekly
26-week bill	1,000	1,000	Weekly
2-year note	1,000	1,000	Monthly
5-year note	1,000	1,000	February, May, August, November
10-year note	1,000	1,000	February, May, August, November
30-year bond	1,000	1,000	February, August

U.S. Treasury Auctions

- At each Treasury auction, the Federal Reserve accepts sealed bids of two types.

① Competitive bids specify a bid price/yield and a bid quantity. Such bids can only be submitted by Treasury securities dealers.

② Noncompetitive bids specify only a bid quantity, and may be submitted by individual investors. The price/yield is determined by the results of the competitive auction process.

U.S. Treasury Auctions

- All noncompetitive bids are accepted automatically and are subtracted from the total issue amount.
- Then a *stop-out bid* is determined. This is the price at which all competitive bids are sufficient to finance the remaining amount.
- Since 1998, all U.S. Treasury auctions have been single-price auctions in which all accepted bids pay the stop-out bid.

Federal Government Agency Securities

- Bonds issued by U.S. government agencies share an almost equal credit quality with U.S. Treasury issues.
- They are attractive in that they offer higher yields than comparable U.S. Treasury securities.
- However, the market for agency debt is less active than the market for U.S. Treasury debt.
  - Compared to T-bonds, agency bonds have a wider bid-ask spread.

Municipal Bonds

- Municipal notes and bonds, or *munis*, are intermediate- to long-term interest-bearing obligations of state and local governments, or agencies of those governments.
- Since their coupon interest is usually exempt from federal income tax, the market for municipal debt is commonly called the *tax-exempt market*.

Municipal Bonds

- The federal income tax exemption makes municipal bonds attractive to investors in the highest income tax brackets.
- However, yields on municipal debt are less than yields on corporate debt with similar features and credit quality.
- The risk of default is also real despite their usually-high credit ratings.

Municipal Bond Features

- Municipal bonds
  - are typically callable,
  - pay semiannual coupons,
  - have a par value denomination of $5,000,
  - have prices that are stated as a percentage of par value (though municipal bond dealers commonly use yield quotes in their trading procedures),
  - are commonly issued with a serial maturity structure (hence the term *serial bonds,* versus *term bonds*),
  - may be putable
  - may be strippable (hence creating *muni-strips*).

Types of Municipal Bonds

- Bonds issued by a municipality that are secured by the full faith and credit (general taxing powers) of the issuer are known as *general obligation bonds (GOs)*.
- Municipal bonds secured by revenues collected from a specific project or projects are called *revenue bonds*.
  - Example: Airport and seaport development bonds that are secured by user fees and lease revenues.