The UNIVERSITY of VERMONT

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Notes – Topic 8

Bonds and Leases

I. Debt Fundamentals.
   a. Parties: Borrower, Lender, maybe Guarantor to satisfy lender if borrower defaults.
   b. Principal = Amount Borrowed
   c. Period = Length before the loan is repaid in full or in part.
   d. Interest = Cost of Using Money.

II. Time Value of Money
   a. Money you can expect to get in the future isn't worth as much as it would be today.
   b. Present Value
      i. If you expect to get money in the future, what's it worth today?
      ii. Discounting: Take future value, discount to present value.
      iii. Present Value = Future Value / $(1 + I)^N$
   c. Future Value
      i. If you have money now, what will it be worth in the future?
      ii. Future Value = Present Value * $(1 + i)^N$
   d. Annuity
      i. Series of equally spaced, equal-amount payments.
      ii. See chart in book.

III. Long-Term Liabilities
   a. Notes payable
   b. Capital leases
   c. Bonds
      i. Promissory notes to pay principal plus interest in cash at nominal ("coupon") rate.
      ii. Principal paid at maturity (usually at least ten years from issuance).
      iii. Classifications
         1. Bondholder Protection
            a. Debenture. Not secured by any specific assets.
            b. Secured bond. Tied to specific assets. Lessens risk so lower interest.
         2. How Interest is Paid
            a. Registered Bonds. Interest paid to those individuals registered as bondholders with the borrower.
            b. Coupon Bonds. Bond comes with coupons. Clip a coupon and mail it to get a cheque for interest.
         3. How it Matures
            a. Term Bonds. Matures at set date.
            b. Serial Bonds. Paid in installments over time.
            c. Callable Bonds. Issuer can redeem at any point in time.
            d. Convertible Bonds. Can be converted into another security – often common stock.
         4. Special Cases
            a. Zero Coupon Bonds
               i. No interest rate, usually for $1000.
               ii. Deeply discounted by investors.
               iii. Pay the present value based on the market interest rate ($800 perhaps) and receive the full $1000 at maturity.
            b. Junk Bonds
               i. High risk, high yield.
               ii. Put out by companies on shaky ground.
      iv. Issuing

1. Find underwriter – an investment banker, perhaps part of a syndicate.
2. Define terms. Face value, nominal rate, period, etc.
3. Draft indenture specifying terms.
4. Identify trustee – often a large bank. The trustee protects bondholders' rights.
5. Actually issue bonds. May be issued privately or to the public. If to the public, the syndicate buys the bonds and resells them to the public for a commission.

v. Valuing Bonds
   1. New bond may sell at…
      a. …par. Market Rate = Nominal Rate.
      b. …a discount.
         i. Market Rate > Nominal Rate
         ii. Increase in interest expense.
      c. …a premium.
         i. Market Rate < Nominal Rate
         ii. Decrease in interest expense.
   2. Need to account for the difference in rates since bonds paying more interest are more valuable.
   3. Accounting for Discounts
      a. DR Cash, DR Discount on Bonds Payable. CR Bonds Payable
   4. Amortizing Discounts and Premiums
      a. Straight-line is bad – implies a changing rate of interest. Use "Effective Interest" method.
      b. DR Interest Expense, CR Discount on Bonds Payable.