Lesson 6 (Feb 13): Fixed Income

- Bond:
    - Fixed income investment issued by a borrower (corporation or government) and bought by an investor (individual)
    - Pays a periodic coupon and a final lump sum amount at the end of its maturity
    - Issued to raise money for companies (needed to expand operations or launch new products), in which they repay the investor for
    - Government bonds are the least risky as governments have the lowest risk of being unable to repay or stop operating
- Components of a bond:
    - *Face value:* the final lump sum amount
    - *Coupon rate:* used to calculate the coupon payments
    - *Compounding frequency:* how often the coupon is paid
    - *Yield rate:* an estimate of the annual return that the investor will receive
    - *Time to maturity:* how long until the bond ends and the future value is paid
- Bond Prices:
    - Determined by the yield rate
    - Sold at a premium:
        - Bond price > face value
        - Occurs when the coupon > yield
    - Sold at a discount:
        - Face value > bond price
        - Occurs when the yield > coupon
- Green Bonds:
    - The same idea as regular bonds, but their proceeds are used to finance projects with environmental benefits (ex. Rhino Bond)
    - Support Canada's goal of a net-zero emissions economy by 2050
    - Canada's Green Bond Framework outlines what projects can utilize green bonds including:
        - Living natural resources and land use
        - Terrestrial and aquatic biodiversity
        - Climate change adaptation
        - Energy efficiency
    - Can be purchased by individual investors on CoPower and Solar Share, through the government entity, development banks or supranationals (EIB, WBG, IFC)
    - Examples include:
        - iShares Floating Rate Bond ETF (FLOT)
        - Invesco WilderHill Clean Energy ETF (PBW)
        - VanEck Vectors Low Carbon Energy ETF (SMOG)
- Convertible Bonds:
    - A hybrid security that provides a conversion option of transforming the bond into shares of the company

    - Issues payments and a final lump sum
        - Coupon rate is lower because it has the option to convert to shares
    - When the bond is converted into shares, the principal is not paid back
    - *Conversion ratio:* how many shares the bond can be redeemed for
    - *Conversion price:* the price the stock must reach for the bond to be eligible for redemption
        - = bond par value / conversion ratio
    - Three main types: vanilla, mandatory and reverse
- Zero Coupon Bonds:
    - A debt security that does not pay interest, so to remain competitive they trade at a discount
        - Par value - purchase price = profit
    - As the entire sum is paid at maturity, the prices fluctuate in price more than coupon payments
    - *Imputed interest:* while they do not pay interest, phantom interest is recognized for tax purposes
        - = face value - purchase price
        - Income tax is paid on the phantom interest
    - Typically used for large future expenses (such as university tuition or retirement)
    - More sensitive to interest rate risk and inflation risk than coupon bonds
- Bond Research Resources
    - Yahoo Bond Centre: information about specific bonds
        - https://finance.yahoo.com/bonds/
    - Reuters (Rates and Bonds Section): general overview of bonds
        - https://www.reuters.com/markets/rates-bonds/
    - Business & Markets Insider: personalized bond finder
        - https://markets.businessinsider.com/bonds/finder