Bonds: Analysis and Strategy

Chapter 18
Charles P. Jones, Investments: Analysis and Management,
Ninth Edition, John Wiley & Sons
Why Buy Bonds?

- Attractive to investors seeking steady income and aggressive investors seeking capital gains
- Promised yield to maturity is known at the time of purchase
- Can eliminate risk that a rise in rates decreases bond price by holding to maturity
The Case Against Buying Bonds

• Don’t hold bonds unless investing strictly for income
  – Capital appreciation negative 1926-96

• Alternative: a combination of cash investments and stocks

• Investors should consider whether they could build better portfolios that do not include bonds
Buying Foreign Bonds

• Why?
  – Foreign bonds may offer higher returns at a point in time than alternative domestic bonds
  – Diversification

• Can be costly and time-consuming
  – Illiquid markets
  – Transaction costs and exchange rate risk
Understanding the Bond Market

• Benefits from a weak economy
  – Interest rates decline and bond prices increase

• Important relationship is between bond yields and inflation rates
  – Investors react to expectations of future inflation rather than current actual inflation
The Term Structure of Interest Rates

• Term structure of interest rates
  – Relationship between time to maturity and yields

• Yield curves
  – Graphical depiction of the relationship between yields and time for bonds that are identical except for maturity
    • Default risk held constant
Term Structure of Interest Rates

• Upward-sloping yield curve
  – typical, interest rates rise with maturity
• Downward-sloping yield curves
  – Unusual, predictor of recession?
• Term structure theories
  – Explanations of the shape of the yield curve and why it changes shape over time
Pure Expectations Theory

- Long-term rates are an average of current short-term rates and those expected to prevail over the long-term period
  - Average is geometric rather than arithmetic
- If expectations otherwise, the shape of the yield curve will change
Liquidity Preference Theory

- Rates reflect current and expected short rates, plus liquidity risk premiums
- Liquidity premium to induce long term lending
  - Implies long-term bonds should offer higher yields
- Interest rate expectations are uncertain
Preferred Habitat Theory

• Investors have preferred maturities
  – Borrowers and lenders can be induced to shift maturities with appropriate risk premium compensation
  – Shape of yield curve reflects relative supplies of securities in each sector

• Most market observers are not firm believers in any one theory
Risk Structure of Rates

• Yield spreads
  – Relationship between yields and the particular features on various bonds

• Yield spreads are a result of
  – Differences in: quality, coupon rates, callability, marketability, tax treatments, issuing country
Passive Bond Strategies

• Investors do not actively seek out trading possibilities in an attempt to outperform the market
  – Bond prices fairly determined
  – Risk is the portfolio variable to control

• Investors do assess default and call risk
  – Diversify bond holdings to match preferences
Passive Bond Strategies

• Buy and hold
  – Choose most promising bonds that meet the investor’s requirements
  – No attempt to trade in search of higher returns

• Indexing
  – Attempt to match performance of a well known bond index
  – Indexed bond mutual funds
Immunization

• Used to protect a bond portfolio against interest rate risk
  – Price risk and reinvestment risk cancel

• Price risk results from relationship between bond prices and rates

• Reinvestment risk results from uncertainty about the reinvestment rate for future coupon income
Immunization

• Risk components move in opposite directions
  – Favorable results on one side can be used to offset unfavorable results on the other

• Portfolio immunized if the duration of the portfolio is equal to investment horizon
  – Like owning zero-coupon bond
Active Bond Strategies

• Requires a forecast of changes in interest rates
  – Lengthen (shorten) maturity of bond portfolio when interest rates are expected to decline (rise)

• Horizon analysis
  – Projection of bond performance over investment horizon given reinvestment rates and future yield assumptions
Active Bond Strategies

- Identify mispricing among bonds then swap
  - Substitution swap, yield pickup swap, rate anticipation swap, sector swap
- Interest rate swaps
  - Exchange a series of cash flows
  - Convert from fixed- to floating-rate
  - Primarily used to hedge interest rate risk
Building a Fixed-Income Portfolio

• If conservative investor
  – View bonds as fixed-income securities that will pay them a steady stream of income with little risk
  – Buy and hold Treasury securities

• Conservative investor should consider:
  – Maturity, reinvestment risk, rate expectations, differences in coupons, indirect investing
Building a Fixed Income Portfolio

• If aggressive investor
  – View bonds as source of capital gains arising from changes in interest rates
  – Treasury bonds can be bought on margin to further magnify gains (or losses)
  – Seek the highest total return

• International bonds
  – Direct or indirect investment
END