Advanced International Capital Movements

November 27, 2025

Contents

<Homework Assignment>: Research Work

1. Choose a research topic which interests you
2. Make a research proposal and submit it before the final exam on December 10
3. 10+ pages
4. Contents should have
    1) Research objectives and Research Questions
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    3) Literature Review and Hypotheses
    4) Research Model
    5) Research Methods and Data Sources
    6) Probable Findings
    7) Conclusion and Implication
    8) References (more than 20)

I. Types of Fixed Income Securities

1. By Issuers

1. U.S. Government Bonds (Federal Government)

These are issued directly by the U.S. Department of the Treasury.

Types

1. **Treasury Bills (T-Bills)**
   - Maturity: less than 1 year
   - No coupon; issued at discount
2. **Treasury Notes (T-Notes)**
   - Maturity: 2–10 years
   - Semiannual coupons
   - Includes the **10-year Treasury**, a global benchmark
3. **Treasury Bonds (T-Bonds)**
   - Maturity: 20–30 years
   - Semiannual coupons

4. **Treasury Inflation-Protected Securities (TIPS)**
   - Principal adjusted based on CPI
   - Protects investors from inflation
5. **Floating Rate Notes (FRNs)**
   - Interest resets every 3 months
   - Based on 13-week T-bill rate
6. **Savings Bonds (EE, I Bonds)**
   - Sold to individuals, not traded in markets
   - I-bonds have inflation-adjusted rates

Risk Level:

Lowest risk globally due to U.S. government backing.

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2. U.S. Government Agency Bonds

Issued by U.S. federal agencies or government-sponsored enterprises (GSEs).

(A) Government-Sponsored Enterprises (GSEs)

Not fully government guaranteed but implied support.

Examples:

- **Fannie Mae (FNMA)**
- **Freddie Mac (FHLMC)**
- **Federal Home Loan Banks (FHLB)**
- **Farm Credit System**

(B) Federally Owned Agencies

These *are* backed by the U.S. government.

Examples:

- **Ginnie Mae (GNMA)** — guarantees mortgage-backed securities
- **Tennessee Valley Authority (TVA)**

Risk Level:

Low, but slightly higher than Treasuries.

3. Municipal Bonds (Issued by State and Local Governments)

Issued by:

- States
- Counties
- Cities
- School districts
- Public infrastructure authorities

Types

1. **General Obligation (GO) Bonds**
    - Backed by taxing power
    - Lower risk
2. **Revenue Bonds**
    - Backed by specific project revenue (tolls, utilities, airports)
3. **Municipal Notes (short-term)**
    - TANs, RANs, BANs (tax/revenue/bond anticipation notes)

Key Feature

Often **tax-exempt** for federal income tax; sometimes state tax-exempt too.

Risk Level:

Low to medium, depending on local government finances.

4. Corporate Bonds (Private Sector Issuers)

Issued by U.S. companies for financing expansions, R&D, mergers, etc.

Types

1. **Investment Grade Bonds**
    - Issuers: Apple, Microsoft, Johnson & Johnson, Walmart
    - Ratings: AAA to BBB-
2. **High-Yield (Junk) Bonds**
    - Issuers: Companies with weaker credit ratings
    - Higher default risk
    - Higher yields
3. **Convertible Bonds**
    - Can be converted into company stock
4. **Callable / Putable Bonds**
    - Callable: issuer can redeem early
    - Putable: investor can sell back early

5. U.S. Mortgage-Backed and Asset-Backed Securities (MBS/ABS)

Technically also bonds, but backed by pools of assets rather than a single issuer.

(A) Mortgage-Backed Securities (MBS)

Issued by:

- Ginnie Mae
- Fannie Mae
- Freddie Mac
- Private banks ("private-label MBS")

(B) Asset-Backed Securities (ABS)

Backed by:

- Auto loans
- Credit card receivables
- Student loans
- Equipment leases

Risk Level:

Varies widely depending on collateral and structure

II. Bond Investment

✅ Key Aspects Investors Must Know Before Investing in Bonds

Bond investment is not just about interest income—it's about understanding **risk, return, structure, market forces, and issuer characteristics**. Below are the essential components every investor must know.

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1. Coupon Rate and Yield (Return Measurement)

Investors must understand different measures of bond return:

(1) Coupon Rate

- The fixed interest paid annually or semiannually.
- Example: A 4% coupon bond pays $40 per year on $1,000 face value.

(2) Current Yield

Current Yield = **Coupon / Market Price**

- Shows income relative to current price.

(3) Yield to Maturity (YTM)

- The most important return measure.
- Includes: coupon + capital gain/loss if held to maturity.

2. Maturity and Duration (Time-Related Risk)

(1) Maturity

- Longer maturity = higher interest rate risk.
- Short-term: stable
- Long-term: volatile

(2) Duration

- Measures how sensitive a bond is to changes in market interest rates.
- A must-know for risk management.
- Example: If duration = 5, and interest rates rise 1%, price falls ≈ 5%.

3. Credit Risk (Issuer's Default Probability)

Investors must assess the **creditworthiness of the issuer**.

Ratings by Agencies:

- **Investment Grade** (AAA to BBB-)
- **High Yield (Junk)** (BB+ and below)

Types of Credit Risk

- **Default risk**: issuer fails to pay interest or principal
- **Downgrade risk**: rating is cut, price falls
- **Credit spread risk**: widening spreads reduce price

4. Interest Rate Risk (Most Important Market Risk)

Bond prices move **inversely** to interest rates.

- Rates ↑ → Bond prices ↓
- Rates ↓ → Bond prices ↑

Investors must know:

- How macroeconomic changes (inflation, GDP, Fed decisions) influence rates
- How long-term bonds are especially sensitive

7. Call and Prepayment Risk (for Callable Bonds and MBS)

Some bonds allow issuers to **call (redeem early)**.

Risks:

- If rates fall, issuer calls the bond → investor must reinvest at lower yield
- Common in corporate and municipal bonds
- MBS have **prepayment risk**: homeowners pay mortgages early when rates fall

8. Reinvestment Risk

Reinvesting coupons may yield lower rates if interest rates decline.

Big for:

- Long-term coupon bonds
- Callable bonds
- High-coupon bonds

Small for:

- Zero-coupon bonds (no reinvestment needed)

11. Currency Risk (For International Bonds)

For non-U.S. investors or U.S. investors buying foreign bonds:

- Exchange rate fluctuations affect total return
- Hedging may be needed

Example:

A Korean investor buying U.S. Treasuries must watch **USD/KRW** movement.

12. Bond Structure (Simple vs. Complex Securities)

Investors should understand:

- Zero-coupon bonds
- Floating rate notes
- Convertible bonds
- Perpetual bonds
- Sinking fund provisions
- Senior vs. subordinated bonds

Complex structures may offer higher yield but much higher risk.

🌟 What Is Duration (in Bond Investment)?

Duration measures how sensitive a bond's price is to interest rate changes.

It tells you:

> **"If interest rates move by 1%, how much will the bond's price change?"**

Duration is expressed in **years**, but it is **NOT** the same as maturity.

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V. Q&A