Chapter Objective:
This chapter discusses the cost of capital for the multinational firm.

Chapter Outline
- Cost of Capital
- Cost of Capital in Segmented vs. Integrated Markets
- Does the Cost of Capital Differ Among Countries?
- Cross-Border Listings of Stocks
- Capital Asset Pricing Under Cross-Listings
- The Effect of Foreign Equity Ownership Restrictions
- The Financial Structure of Subsidiaries.

Cost of Capital
- The cost of capital is the minimum rate of return an investment project must generate in order to pay its financing costs.
- For a levered firm, the financing costs can be represented by the weighted average cost of capital:

\[ K = (1 - \lambda)K_e + \lambda(1 - \tau)i \]

Weighted Average Cost of Capital
\[ K = (1 - \lambda)K_e + \lambda(1 - \tau)i \]

Where
- \( K \) = weighted average cost of capital
- \( K_e \) = cost of equity capital for a levered firm
- \( i \) = pretax cost of debt
- \( \lambda \) = debt to total market value ratio
- \( \tau \) = marginal corporate income tax rate

The Firm’s Investment Decision and the Cost of Capital
- A firm that can reduce its cost of capital will increase the profitable capital expenditures that the firm can take on and increase the wealth of the shareholders.
- Internationalizing the firm’s cost of capital is one such policy.
Cost of Capital in Segmented vs. Integrated Markets

The cost of equity capital ($K_e$) of a firm is the expected return on the firm’s stock that investors require.

This return is frequently estimated using the Capital Asset Pricing Model (CAPM):

$$ \bar{R}_i = R_f + \beta_i (\bar{R}_M - R_f) $$

where

$$ \beta_i = \frac{\text{Cov}(R_i, R_M)}{\text{Var}(R_M)} $$

If capital markets are segmented, then investors can only invest domestically. This means that the market portfolio ($M$) in the CAPM formula would be the domestic portfolio instead of the world portfolio.

$$ \bar{R}_i = R_f + \beta_i^{1/2} (\bar{R}_{U.S} - R_f) $$

versus

$$ \bar{R}_i = R_f + \beta_i^{1/2} (\bar{R}_{W} - R_f) $$

Clearly integration or segmentation of international financial markets has major implications for determining the cost of capital.

Does the Cost of Capital Differ among Countries?

There do appear to be differences in the cost of capital in different countries.

When markets are imperfect, international financing can lower the firm’s cost of capital.

One way to achieve this is to internationalize the firm’s ownership structure.

Real After-Tax Cost of Funds

Cross-Border Listings of Stocks

Cross-border listings of stocks have become quite popular among major corporations.

The largest contingent of foreign stocks are listed on the London Stock Exchange.

U.S. exchanges attracted the next largest contingent of foreign stocks.
Cross-Border Listings of Stocks

Cross-border listings of stocks do carry costs.
1. It can be costly to meet the disclosure and listing requirements imposed by the foreign exchange and regulatory authorities.
2. Once a company’s stock is traded in overseas markets, there can be volatility spillover from these markets.
3. Once a company’s stock is made available to foreigners, they might acquire a controlling interest and challenge the domestic control of the company.

On average, cross-border listings of stocks appear to be a profitable decision.
The benefits outweigh the costs.

Capital Asset Pricing Under Cross-Listings

Recall the definition of beta: \( \beta_i = \frac{\text{Cov}(R_i, R_M)}{\text{Var}(R_M)} \)

We can recalibrate the CAPM formula
\[
\bar{R}_i = \bar{R}_f + \beta_i (\bar{R}_M - \bar{R}_f)
\]

As:
\[
\bar{R}_i = \bar{R}_f + (\bar{R}_M - \bar{R}_f) \times \frac{\text{Cov}(R_i, R_M)}{\text{Var}(R_M)}
\]

This equation indicates that, given investors' aggregate risk-aversion measure, the expected rate of return on an asset increases as the asset’s covariance with the market portfolio increases.

In fully integrated capital markets, each asset will be priced according to the world systematic risk.
\[
\bar{R}_i = \bar{R}_f + \bar{R}_W \text{Cov}(R_i, R_M)
\]

The International Asset Pricing Model (IAPM) above has a number of implications.
International listing of assets in otherwise segmented markets directly integrates international capital markets by making these assets tradable.
Firms with nontradable assets essentially get a free ride from firms with tradable assets in the sense that the former indirectly benefit from international integration in terms of a lower cost of capital.
The Effect of Foreign Equity Ownership Restrictions

- While companies have incentives to internationalize their ownership structure to lower the cost of capital and increase market share, they may be concerned with the possible loss of corporate control to foreigners.
- In some countries, there are legal restrictions on the percentage of a firm that foreigners can own.
- These restrictions are imposed as a means of ensuring domestic control of local firms.

Pricing-to-Market Phenomenon

- Suppose foreigners, if allowed, would like to buy 30 percent of a Korean firm.
- But they are constrained by ownership constraints imposed on foreigners to purchase at most 20 percent.
- Because this constraint is effective in limiting desired foreign ownership, foreign and domestic investors many face different market share prices.
- This dual pricing is the \textit{pricing-to-market} phenomenon.

Asset Pricing under Foreign Ownership Restrictions

- An interesting outcome is that the firm’s cost of capital depends on which investors, domestic or foreign, supply capital.
- The implication is that a firm can reduce its cost of capital by internationalizing its ownership structure.

An Example of Foreign Ownership Restrictions: Nestlé

- Nestlé used to issue two different classes of common stock: bearer shares and registered shares.
  - Foreigners were only allowed to buy bearer shares.
  - Swiss citizens could buy registered shares.
  - The bearer stock was more expensive.
- On November 18, 1988, Nestlé lifted restrictions imposed on foreigners, allowing them to hold registered shares as well as bearer shares.
- Following this, the price spread between the two types of shares narrowed dramatically.
  - This implies that there was a major transfer of wealth from foreign shareholders to Swiss shareholders.
  - The price of registered shares rose by about 35 percent.
- Because registered shares represented about two-thirds of the market capitalization, the total value of Nestlé increased substantially when it internationalized its ownership structure.
- Nestlé’s cost of capital therefore declined.
An Example of Foreign Ownership Restrictions: Nestlé

- Foreigners holding Nestlé bearer shares were exposed to political risk in a country that is widely viewed as a haven from such risk.
- The Nestlé episode illustrates
  - The importance of considering market imperfections.
  - The peril of political risk.
  - The benefits to the firm of internationalizing its ownership structure.

The Financial Structure of Subsidiaries.

- There are three different approaches to determining the subsidiary’s financial structure.
  1. Conform to the parent company’s norm.
  2. Conform to the local norm of the country where the subsidiary operates.
  3. Vary judiciously to capitalize on opportunities to lower taxes, reduce financing costs and risk, and take advantage of various market imperfections.

The Financial Structure of Subsidiaries.

- In addition to taxes, political risk should be given due consideration in the choice of a subsidiary’s financial structure.

End Chapter Seventeen