OUTLINE FOR CHAPTER 14

- To understand the benefits of gaining access to global capital markets

1

Chapter 14 - Global Cost and Availability of Capital

- When firms get access to global markets costs can be reduced as well as availability of funds increased.
- Benefits are potentially the highest for small firms and firms in illiquid or segmented markets.

2

Review - Weighted Average Cost of Capital (WACC)

- Cost of the bundle of funds employed by the firm
- $K_{wacc} = K_e\ (E/V) + K_d\ (1\text{-}T)\ (D/V)$

where:

K_{wacc} is the weighted average after tax cost of capital

K_e is the risk adjusted cost of equity

3

WACC - Continued

K_d is before tax cost of debt
T is the marginal tax rate
E is the market value of the firm's equity
D is the market value of the firm's debt
V is the total market value of the firm

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Cost of Equity (using Capital Asset Pricing Model)

- $K_e = k_{rf} + \beta_i (k_m - k_{rf})$
- Where
  - K_e = required/expected rate of return on equity
  - K_{rf} = rate of return on risk-free bonds
  - B_i = systematic risk of firm_i
  - K_m = required/expected rate of return on the market

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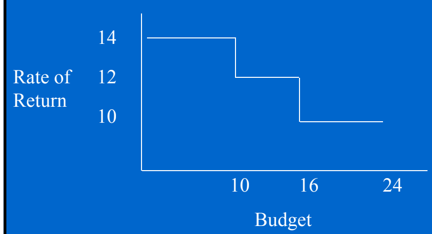
Review - Marginal Return on Capital Schedule (MRR)

- Suppose a firm has three projects with the following returns and initial costs:

Project	Yield	Cost
A	.14	10 million
B	.12	6 million
C	.10	8 million

6

MRR - Continued



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Improving Market Liquidity

- Market liquidity: if a firm issues a new security will market price suffer <u>and</u> will a change in price of any if its securities elicit a big order flow
- It is assumed that a firm can not raise unlimited funds without the cost of those funds increasing even if firm maintains optimal capital structure

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Improving Market Liquidity - Continued

- Key idea: if a firm is able to get international sources of capital, it should have a lower marginal cost of capital at some point at least in the short-run (see diagram on page 385).
- A firm would raise funds both in international markets as well as domestic markets.

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Improving Market Liquidity - Continued

- As a result, the firm may be able to take on more projects which will add value.
- These benefits may be significant for firms residing in countries with illiquid capital markets

10

Overcoming Market Segmentation

- Definition of market segmentation: Return/risk tradeoffs are different in various markets after adjusting for foreign exchange risk and political risk
- Likely a firm operating in a segmented market will have a higher marginal cost of capital than if it were in an integrated market

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Gains form Overcoming Market Segmentation

- See diagram on page 376 for these gains
- Markets are becoming more and more integrated so these gains are becoming less and less

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What Causes Market Segmentation

- (1) Information barriers (language, accounting principles, quality of disclosure) - foreign investors may not have access to good information and therefore may not want to invest in a market full of these barriers
- (2) Transaction costs (taxes, commissions, etc.) - if too high investors will go to other markets

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Causes - Continued

- (3) Foreign exchange risk - if exchange rates are too volatile or if currency depreciates too much, foreigners may not want to invest there
- (4) Small-country bias (volume too low for international investors, maybe an illiquid market)

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Causes - Continued

- (5) Political Risk - fear of government intervention (example - capital controls)
- (6) Regulatory barriers (excessive rules) - discourage investors from investing in that market

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Comparing Cost of Capital for Multinationals and Domestic Firms

- Read pages 379-382.

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OUTLINE FOR CHAPTER 15

- Crosslisting
- ADRs
- Sourcing Equity Abroad

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Chapter 15 - Sourcing Equity Globally

- Emphasis in this chapter are firms operating in less liquid or segmented markets
- Often US and UK firms source overseas to fund large foreign acquisitions and not for their existing domestic or foreign operations

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Crosslisting

- Listing your company shares on a foreign market

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Barriers to Crosslisting

- For non-U.S. firms the disclosure requirements for the SEC are tough and continuous
- May also need a continual program of investor relations

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ADRs

- Crosslisting usually done through depositary receipts (shares). In U.S. foreign shares are usually traded as American depositary receipts (ADRs). Global Depositary Receipts (GDRs) are traded outside the US.
- Negotiable certificates issued by a U.S. bank to represent foreign stock which are held in trust in foreign bank

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ADRs - Continued

- ADRs represent some multiple of the foreign stock
- ADRs sold, registered, and transferred in U.S. like any other stock
- Dividends paid in U.S. dollars
- Can be sponsored (created by request of foreign firm) or unsponsored (U.S. firm initiated process)

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ADRs - Continued

- Arbitrage will force the price of ADRs to the same as the foreign stock taking account transaction costs

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ADRs - Continued

- Different levels of ADRs (see page 394)
  - Depending on the level there are different disclosure requirements. Also in some cases a firm can raise new capital.

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Major Markets to Crosslist

New York
Tokyo
London
Germany

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Why Crosslist or Sell New Equity on Foreign Stock Exchanges

- (1) Improve the liquidity for existing shareholders by letting them trade in their home markets and currencies
- (2) Possibly have a favorable effect on share price if markets are segmented or illiquid

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Why Crosslisting - Continued

- (3) If a company wants to issue stock in the future in a particular market may want to crosslist now.
- (4) Might help if trying to acquire firms in foreign markets (if pay in stock, not cash)

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Why Crosslisting - Continued

- (5) Increase firm's visibility and political acceptance to customers, suppliers, creditors and local governments - if there is local ownership the firm may be more popular
- (6) Create a secondary market for shares to reward employees

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Sourcing New Equity Shares

- Examples:

(1) Sale of directed public share issue to investors in a foreign country. Would be underwritten in part by institutions in that country.

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Sourcing New Equity Issues - Continued

(2) Sale of Euro-equity issues - firm issues shares simultaneously in more than one market (could be domestic as well as foreign). Underwritten by an international syndicate. Examples include some privatizations of government owned businesses (British Telecom, British Steel, and Telefonos de Mexico))

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Sourcing New Equity Issues - Continued

- (3) Private Placement Under SEC Rule 144A
  - Sales often to insurance and investment companies
  - Foreign issues can tap private placement market without SEC registration

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Other Alternatives that may raise Equity Capital

- Sell equity to a Private Equity Capital
- Sell shares to partner in Strategic Alliance

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OUTLINE FOR CHAPTER 16

- Explaining optimal financial structure
- Understand some of the principles involved in sourcing debt overseas
  - General guidelines for issuing debt
  - Cost of foreign debt
  - International debt markets

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Chapter 16 – Sourcing Debt Globally

- Chapter discusses:
- (1) Optimal Financial Structure
  (2) Guidelines for issuing debt
  (3) Overview of some international debt markets

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Optimal Financial Structure

- Generally argued that a moderate amount of debt is good (tax advantage) but too much debt is bad (bankruptcy risk)
- Also WACC is effectively minimized over a range of debt (say 30% -60%) and not at some precise amount say 44 %

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Optimal Financial Structure for Multinationals

- From Chapter 14, one big advantage for U.S. multinationals or large non-U.S. multinationals is that they are able to raise "lots" of capital without the cost of these funds increasing much
- This is not the case for small domestic firms and most multinationals operating in small or illiquid markets

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Financial Risk Reduction through International Diversification

- Possible to argue that multinationals can have more debt because their cash flows are more diversified and hence less bankruptcy risk
- In reality, multinationals have less debt than comparable domestic firms after adjusting for size

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Financial Structure for Foreign Affiliates

- Goal for firm: minimize WACC for entire firm, not for each affiliate. Each subsidiary does not really have an independent capital structure.
- Note when discussing debt for a subsidiary what is relevant is debt borrowed from sources outside of the multinational firm (not debt from the parent or sister affiliate. Also hard to distinguish between debt and equity from the parent)

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Advantages to Conforming to Local D/E Ratios

- Reduce criticism from local Government officials or from others (for example, too much debt or too little debt)
- Easier to evaluate firm with local competitors when all firms have same capital structure

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Disadvantage of Conforming to Local D/E Ratios

- Multinational should exploit its advantages (one of them is its ability perhaps to have a lower cost of capital). If multinational tries to localize its cost of capital for each subsidiary, it may result in losing one of its key advantages

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Conclusion - Local D/E Ratios

- The firm should strive to have the lowest overall cost of capital for the firm as a whole
- If there is no penalty for conforming to local norms, then the firm should try and do so

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Guidelines for Issuing Debt

- Maturity Matching
  - Firm divides its assets in three categories - (1) fixed assets, (2) permanent current assets (the minimum amount of current assets the firm has), and (3) temporary current assets (total current assets - permanent current assets)
  - In theory, could finance all fixed assets and permanent current assets with long-term debt and equity and temporary current assets with short-term debt (see diagram)

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Maturity Matching - Continued

- In general, short-term financing is cheaper (rates are generally cheaper and also firm does not have to pay interest when funds are not needed)
- However, short-term financing is riskier (interest rate risk)
- So firm may deviate from maturity matching depending on its return/risk tradeoffs (a conservative firm might use relatively more long-term financing)

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Guidelines - Continued

- Currency Matching - match by cash flows not denomination of assets
  - For example if the firm has a lot of cash flows in Euros then might consider borrowing in Euros

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Cost of Foreign Debt

- Discussed in Chapter 7
- Example - borrow 30 Pesos at 15%, spot rate Pesos 15/$ and expect future rate to be Pesos 16/$
- Borrowed the equivalent of $2 (30 pesos/Pesos 15/$)
- Cost to repay in Dollars = (Pesos 30)(1.15)/(Pesos 16/$) = $2.15625

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Cost of Foreign Debt - Continued

- % cost in \$ = (\$2.15625-\$2)/\$2 =7.8125%
- This approach is equivalent to formula
  - $(1 + i^*)(1 + s) - 1$

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Cost of Foreign Debt - Continued

- Where
  i^* is the foreign interest rate
  s is the percentage change in the exchange rate
- $(1 + .15)(1 - .0625) - 1 = .078125$
  Note $s = (15 - 16)/(16) = -.0625$

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Cost of Foreign Debt - Continued

- Interest payments are tax deductible in the U.S.
- Cost of debt after tax = $k_d(1\text{-}T)$
  Where
  k_d is the before tax cost of debt
  T is the marginal tax rate for the firm

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Digression - Eurocurrency or Eurodollar Market

- A Eurodollar is a U.S. $ deposited in an interest bearing deposit in a bank outside of the U.S. (foreign bank, overseas branch of a U.S. bank, or an "offshore" entity called an International Banking Facility)
- Same idea for Euroyen

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Eurocurrency Market - Continued

- Good market to deposit excess funds and also borrow funds. The market can do this because it is a wholesale market, no reserve requirements, and no FDIC (Federal Deposit Insurance Corporation) fees. Hence the spread (difference between borrowing and deposit rates) is often less than 1%, which is smaller than most domestic markets

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Eurocurrency Market - Continued

- The market originally started with Eastern European countries with dollars wanting to deposit them outside the control of the U.S. government
- Also U.K. authorities worried about the weakening of the pound in 1957 imposed controls of U.K. banks lending pounds to non-residents, so U.K. banks started loaning dollars
- Now a source and use of dollars

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International Debt Markets

- Three major sources
  - Bank Loans and syndicated credits
  - Euronote market
  - International bond market
- Purpose of this section is to give an overview of these markets and not to provide all of the facts about each of the markets
- Please read for more detail pages 418-423.

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International Bank Loans

- Mostly from Eurocurrency market
- Eurodollar bank loans are called Eurodollar credits or Eurocredits
- Small interest rate spread (often less than 1%)

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Eurocredits and Syndicated Credits

- Eurocredits - Bank loans denominated in Eurocurrencies and given by banks in countries other than the country in which the loan is denominated (if the loan is in Yen the loan is not given in Japan)
- Given to governments, MNEs, banks, and international institutions

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Eurocredits - Continued

- Borrowing rate based on LIBOR (London Interbank Offered Rate) which is the deposit rate on interbank loans
- Borrower pays LIBOR + individual premium
- Loans have short and medium-term maturities
- Usually fixed term and no provision for early repayment

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Syndicated Credits

- Lending banks form a syndicate to diversify risk because size of loans is usually too large for one bank

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Euronote Market

- Short and Medium term debt instruments in Eurocurrency markets

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Euronote Market - Continued

- Important examples:
  Euronotes - short-term, negotiable, promissory
  Euro-Commercial Paper – short-term debt obligation of a firm or bank
  Euro-Medium-Term Notes - mostly nonunderwritten and it is like a bond

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International Bond Market

- Two main types:
  Eurobonds
  Foreign bonds

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Eurobonds

- Underwritten by an international syndicate
- Sold in countries other than the country in which the issue is denominated (example, English borrower, denominated in pounds, and sold everywhere but U.K.)
- Bearer form (name and country of residence of the owner not on coupon)
- Call provisions and sinking funds

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Advantages of Eurobond Market

- (1) Less regulatory interference (governments would impose less stringent requirements on bonds denominated in another currency)
- (2) Less stringent disclosure requirements than SEC (less of a factor for private placements – Rule #144A)

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Advantages - Continued

- (3) Possible tax advantages - no withholding taxes and since bonds are in bearer form may result in tax avoidance

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Foreign Bonds

- Underwritten by syndicate composed of members from one country
- Sold principally within that country
- Denominated in that currency
- Foreign issuer
- Example: U.S. firm issues bond in pounds in U.K. and underwritten by a British syndicate

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