Class 11

UG3F14
Corporate Finance

Class 11 Topics and Content

- Sources of Capital: Retained Earnings, Equity or Debt Financing:

- ➢ Retained Earnings
- ➢ The Cost of Equity Financing for a Corporation
  - ✓ The Capital Asset Pricing Model (CAPM)
  - ✓ The Security Market Line SML
- ➢ The Cost of Debt Financing for a Corporation

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- ***Sources of Capital: Retained Earnings, Equity or Debt Financing:***

  Businesses with profitable operations (extra cash) can take one of two actions:

  1. Pay out the cash directly to its investors – dividends they will use for example to reinvest in other financial assets like stocks or bonds
  2. Invest the extra cash in a project, paying out the future cash flows of the project

  The discount rate (required rate)of a project should be the expected return on a financial asset of comparable risk

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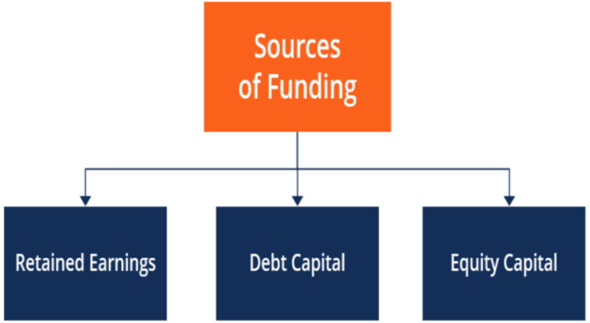
- ***Sources of Capital: Retained Earnings, Equity or Debt Financing:***

    - Businesses needs capital to grow their businesses, and are always looking for the best sources of funding or financing their expansion
    - Capital financing is the act of contributing resources to finance a program, project, or a need for the business to meet their short-term or long-term strategies
    - An important task of the corporate financial manager is measurement of the company’s cost of capital
    - The major sources of funding are:
        1. Retained earnings
        2. Debt capital
        3. Equity capital



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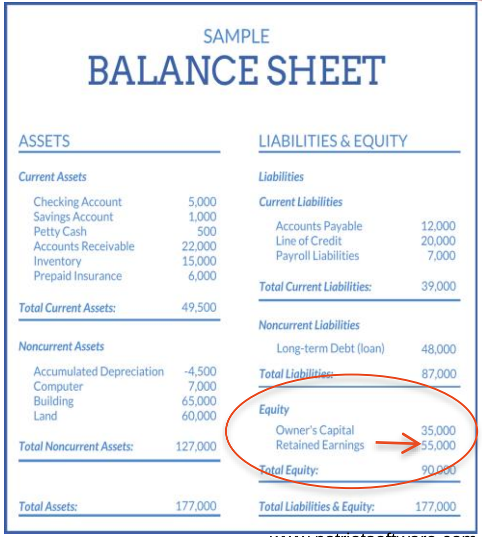
- ***Sources of Capital: Equity or Debt Financing:***

  ➢ The major sources of funding are:

  1. Retained earnings: The business own cash

     ✓ Retained earnings are the profits that a company earned to specific date, less any dividends or other distributions paid to investors
     ✓ The account is adjusted whenever there is an entry to the accounting records that impacts a revenue or expense account of the business
     ✓ A large retained earnings balance usually implies a financially healthy organization, and a negative retained earnings balance account is called accumulated deficit balance
     ✓ The balance is reported in the Stockholder's Equity section of the Balance Sheet of the business, and formula for ending retained earnings is:

Beginning retained earnings + Profits/losses - Dividends = Ending retained earnings



SAMPLE

BALANCE SHEET

ASSETS	
Current Assets	
Checking Account	5,000
Savings Account	1,000
Petty Cash	500
Accounts Receivable	22,000
Inventory	15,000
Prepaid Insurance	6,000
Total Current Assets:	49,500
Noncurrent Assets	
Accumulated Depreciation	-4,500
Computer	7,000
Building	65,000
Land	60,000
Total Noncurrent Assets:	127,000
Total Assets:	177,000

LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	12,000
Line of Credit	20,000
Payroll Liabilities	7,000
Total Current Liabilities:	39,000
Noncurrent Liabilities	
Long-term Debt (loan)	48,000
Total Liabilities:	87,000
Equity	
Owner's Capital	35,000
Retained Earnings	55,000
Total Equity:	90,000
Total Liabilities & Equity:	177,000

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- ***Sources of Capital: Equity or Debt Financing:***

  - The major sources of funding are:
    1. Retained earnings: The business's net income

       Considerations
       - ✓ Age of the company: The older company the more retained earnings balance
       - ✓ Dividend policy: A business that periodically pays dividends will have fewer retained earnings balance
       - ✓ Profitability: A high profit percentage eventually yields a large amount of retained earnings
       - ✓ Cyclical industry (revenues tied to economic cycles): Business in a high cyclical industry tends to reserve more retained earnings during the profitable part of the cycle in order to protect it during downturns

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- ***Sources of Capital: Equity or Debt Financing:***

  - The major sources of funding are:
    1. Retained earnings: The business's profits
       - The cost of retained earnings is equal the return shareholders expects on their investment
       - It is an opportunity cost because the shareholders sacrifice an opportunity to invest that money for a return elsewhere and instead allow the firm to build more capital

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- ***Sources of Capital: Equity or Debt Financing:***

➢ The major sources of funding are:

2. Equity Financing:
   - ✓ Businesses can raise funds from the public in exchange for a proportionate ownership stake in the company in the form of shares issued to investors who become shareholders after purchasing the shares
   - ✓ Compared to debt capital funding, equity funding does not require making interest payments to a borrower
   - ✓ Equity capital funding shares profits among all shareholders in the long term, and dilutes the company’s ownership control as long as it sells more shares

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- ***Sources of Capital: Equity or Debt Financing:***

➢ The major sources of funding are:

2. Equity Financing: An important role of the corporate financial manager is assessing the business cost of equity capital when financing projects

✓ Estimating the Cost of Equity Capital with the Capital Asset Pricing Model - CAPM

- The cost of equity capital, is the required return on the stockholders' investment in the firm
- The the capital asset pricing model (CAPM) estimates the required return
- The *expected* return of a stock under the CAPM RS is:

Expected Return (RS) is the required return on the stock, based on the stock's risk, and it is considered the firm's cost of equity capital

$$RS = RF + \beta * \underbrace{(RM - RF)}_{\text{Market Risk Premium}}$$

RF = risk-free or riskless rate
RM= Expected return on the market portfolio
β = beta of the stock or stock's risk , is the standard CAPM measure of systematic risk

Expected return = a firm's cost of equity capital

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- ***Sources of Capital: Equity or Debt Financing:***

  - The major sources of funding are:

    2. Equity Financing: Example

    An investor is interested in investing $1MM with a minimum required rate of return of 7.50%. The Financial data for the three projects are:

Value	A	B	C
Risk Free Rate	3.00%	3.40%	4.00%
Beta	1.11	0.98	1.4
Market Return	7.00%	7.00%	7.00%

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Value	A	B	C
Equity Risk Premiun	4.00%	3.60%	3.00%
Cost of Equity	**7.44%**	**6.93%**	**8.22%**

- The cost of equity for A, B, and C is 7.44%, 6.93%, and 8.22%, respectively
- Investor: the cost of equity is the rate of return required on an investment – C is the only possible project that meet the required rate of return
- Business: the cost of equity determines the required rate of return on a particular project or investment

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- ***Sources of Capital: Equity or Debt Financing:***

  - The major sources of funding are:
    2. Equity Financing: Example 2

    The stock of the C Company, a publisher of elementary textbooks, has a beta of 1.3. The firm is 100% equity financed; that is, it has no debt and is considering a number of capital budgeting projects to expand its business. The new projects are similar to the firm's existing ones, therefore the average beta on the new projects is assumed to be equal to existing beta, the risk-free rate 5%. What is the appropriate discount rate for this new project, assuming a market risk premium of 8.4 %?

    RS = 5% + (8.4% *1.3) = 15.92%

    The Expected Return of the new projects should be discounted at the rate of 15.92%

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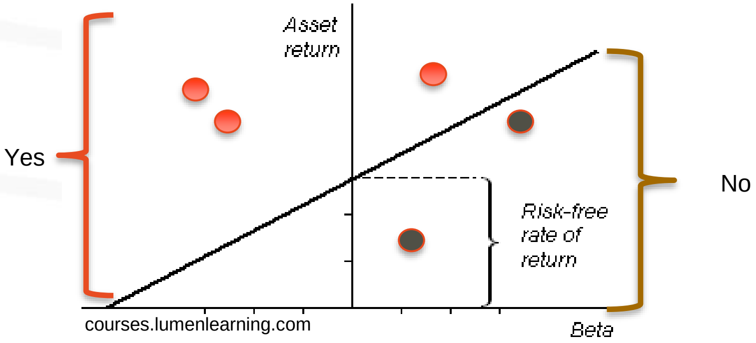
- ***Sources of Capital: Equity or Debt Financing:***

  - The major sources of funding are:
    2. Equity Financing: Security Market Line
       - ✓ The security market line is the theoretical line on which all capital investments lie
       - ✓ Investors want higher expected returns for more risk
       - ✓ The SML displays the expected rate of return of a security as a function of systematic, non-diversifiable risk
       - ✓ The location of a financial instrument above, below, or on the security market line will lead to consequences for a company's cost of capital.

An project plotted below the SML would have a *low* expected return and a *high price*: This is attractive from the perspective of a company raising capital; but would not make sense for a rational *investor*



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- ***Sources of Capital: Equity or Debt Financing:***

  - The major sources of funding are:
    3. Debt Financing: Commercial Loans
       - ✓ Companies obtain debt financing privately through bank loans or source new funds by issuing debt to the public
         - The cost of debt for commercial loans from banks or financial institutions is the borrowing rate on the prospective loan

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- ***Sources of Capital: Equity or Debt Financing:***

  - The major sources of funding are:
    3. Debt Financing: Debt Issue
       - ✓ Companies obtain debt financing privately through bank loans or source new funds by issuing debt to the public
         - Debt financing: the issuer (borrower) issues debt securities like corporate bonds or notes
         - Companies are borrowers because they exchange securities for cash needed to execute projects
         - The issuer will repaying the debt (capital and interest) according to the specified schedule
         - The drawback of borrowing money through debt is that borrowers need to make interest payments, as well as principal repayments, on time - failure to do so may lead the borrower to default or bankruptcy

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         - The drawback of borrowing money through debt is that borrowers need to make interest payments, as well as principal repayments, on time - failure to do so may lead the borrower to default or bankruptcy
         - Firms can deduct their interest payments before paying taxes, but dividends are not tax deductible

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- ***Sources of Capital: Equity or Debt Financing:***

  - The major sources of funding are:
    3. Debt Issue Financing: Cost considerations - Example
       - ✓ *The Vessel Elul Manufacturing Corp. (VEMC) issued €100 million of debt with a 7% interest (coupon) in Nov. 19 to finance the acquisition of a new facility. Today, management wants to finance the facility expansion with a new issue of bonds, but the interest rates had increased (bond prices decreased), and bonds yield 8%. What is the cost of the new debt?*

         - If the old bonds are selling at 8%t, the new debt will not sell at a lower yield, and the cost of the new debt must be around 8%
         - The 7% is a historical number with no relevance today
         - If a business issues debt for the first time, management should seek advise on the yield from an expert, and the yield is considered the cost of debt

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- ***Sources of Capital: Equity or Debt Financing:***

  - The major sources of funding are:
    3. Debt Issue Financing: Cost considerations

    The cost of debt financing is related to the bond interest YTM, or the reference of the industry by one of the rating agencies like S&P or Fitch Rating

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- ***Sources of Capital: Equity or Debt Financing:***

Debt vs Equity Financing – which is best for a business

The decision relies on a large number of factors like the current economic climate, the business' existing capital structure, or the business' life cycle stage

As a rule in obtaining external financing, the issuance of debt is usually considered to be a less expensive source of financing than the issuance of equity