

# CENG 6108 Construction Economics

## **Financing in Construction**

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# TO DO

- ① Short Term Financing
- ② Medium Term Financing
- ③ Long Term Financing

# Short Term Financing

- Short-term financing usually includes loans that mature *within a year or less*.
- Such loans are frequently used to raise temporary funds to cover *seasonal or cyclic business peak or special funding needs* involving a short time frame.
- *Short term loans are generally self-liquidating* in that the assets acquired with the borrowed money should be easily convertible to cash with high degree of certainty.
- It requires more working capital (operating cost), therefore current asset need to be much greater than current liability to come up with a positive working capital.
- When negative working capital encountered:
  - Delay wage payments and salaries;
  - Delay credit payment; and
  - Selling some fixed assets.

# Short Term Financing: Goals

- Finance inventories during a production/construction period.
- Short-term financing allows the firm to match its funds against its needs over an annual, seasonal or other cyclical period.
- To achieve low-cost financing; the interest-free sources provide low-cost financing for the firm by reducing its borrowing need from interest-bearing sources.

# Short Term Financing: Sources

- A. Unsecured Interest-free Sources
  - Accounts Payable;
  - Accruals;
  - Advance Payments;
  - Trade credit; and
  - Advance for purchase of materials/material on site.
- B. Unsecured Interest-bearing Sources
  - Self-Liquidating Bank Loans:
    - Single payment note;
    - Unsecured overdraft facility/ Line of Credit; and
    - Revolving credit agreement.
  - Non Bank Short-term sources:
    - Commercial Paper/ Bond (Treasury bond); and
    - Private Loans.

# Short Term Financing: Sources

- C. Secured Short Term Loans
- A secured loan occurs when the borrower pledges a specific asset, collateral, to back a loan.
- Collateral may be in the form of:
  - Warehouse receipt loan;
  - Receivables:
    - Pledging of accounts receivable; and
    - Factoring receivables.
  - Physical assets.

# Intermediate Term Financing

- Intermediate-term financing usually includes loans with maturity between 1 to 5 years.
- Intermediate-term finance categories:
  - Revolving Credit Agreement;
  - Term Loan; and
  - Lease.
- Intermediate-term financing institutions:
  - Commercial Bank Loans;
  - Insurance Companies;
  - Pension Funds; and
  - Equipment Manufacturers.

# Long Term Financing

- Long-term financing usually refers to the borrowing of money for a **long period of time** in order to invest in fixed assets relatively permanent in nature with long life.
- The Two Common sources:
  - Debt: Sources can be classified into two:
    - Term loans; and
    - Bonds.
  - Equity:
    - Ownership money acquired through the sale of common stocks, preferred stock and retained earnings.



# Long Term Financing

- Equity Vs Debt
- Debt investors are entitled to a contractual set of cash flows (interest and principal) whereas equity investors have a claim of residual cash flows of the firm after it has satisfied all other claims and liabilities.
- Interest paid to debt investors represents a tax-deductible expense whereas dividend paid to equity investors has to come out of profit after tax.
- Debt has a fixed maturity whereas equity ordinarily has infinite life.
- Equity investors enjoy the prerogative to control the affairs of the firm whereas debt investors play a passive role. However, they often impose certain restrictions on the way the firm is run to protect their interests.

# Long Term Financing

- Equity Capital
- A. Common Stock
  - Represents ownership capital as equity shareholders collectively own the company.
  - Bear risks of ownership; and
  - Liable only to the amount of capital.
- Rights and Position of Equity shareholders:
  - Right to income;
  - Right to control;
  - Pre-emptive right; and
  - Right to Liquidation.

# Long Term Financing

- Equity Capital
- B. Preferred Stock
- Represents hybrid form of financing.
- Resembles Equity in the following ways:
  - Dividend is payable only out of distributable profits;
  - Preference dividend is not an obligatory payment;
  - Preference dividend is not a tax-deductible payment; and
  - It is an expensive source of financing.
- Resembles Debt in the following ways:
  - No right to vote; and
  - Claims come before common stock.

# Long Term Financing

- Equity Capital
- C. Retained Earning
- Represents the only internal source of financing for expansion and growth.
- Advantages to the firm:
  - Retained earnings are readily available: Low cost.
  - No dilution of control when the firm relies on retained earnings.
- Disadvantages to the firm:
  - Limited; and
  - High opportunity cost.

# Long Term Financing

- Long Term Debt
- A. Term Loan
- Represents a source of finance which is generally payable in 5 to 10 years.
- Used for acquisition of fixed assets and working capital margin.
- Advantages:
  - No dilution of control, debt owners do not interfere with the firm;
  - Defaulting in case of decline goes to the debtors; and
  - Issue costs of debt are significantly lower than those on equity and preferred stock.
- Disadvantages:
  - Debt financing entails fixed interest and principal repayment obligation.

# Long Term Financing

- Long Term Debt
- B. Bonds
- Issue a bond with the promise of paying the investor (Bond holding firm) a designated interest on his money at certain scheduled intervals of time.
  - Term Bonds;
  - Serial Bonds;
  - Mortgage Bonds;
  - Debenture; and
  - Callable bonds.

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- Fraser, N.M., Jewkes, E., Bernhardt, I., Tajima, M. (2006). *Engineering Economics in Canada*. 3<sup>rd</sup> edition, Prentice Hall.