LECTURE 4

CHAPTER 8

Sources of Short-Term Financing

PhD Nguyen Thanh Nam

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Chapter 8: Sources of Short-Term Financing

- ***Chapter Concept***
  - *Trade credit from suppliers is normally the most available form of short-term financing*
  - *Bank loans are usually short term in nature and should be paid off from funds from the normal operations of the firm*
  - *Commercial paper represents a short-term, unsecured promissory note issued by the firm*
  - *Through borrowing in foreign markets, a firm may lower its borrowing costs*
  - *By using accounts receivable and inventory as collateral for a loan, the firm may be able to borrow larger amounts*

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Chapter 8: Sources of Short-Term Financing

- ***Studying Purpose***
  - *Examine the cost and availability of the various sources of short-term funds such as trade credit, bank loans, corporate promissory notes, foreign borrowing, receivables, and inventory*

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Chapter 8: Sources of Short-Term Financing

- **Main Contents:**
  1. Trade Credit
  2. Bank Credit
  3. Financing through Commercial Paper
  4. Foreign Borrowing
  5. Account Receivable Financing
  6. Inventory Financing
  7. Hedging to reduce Borrowing Risk

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I. Trade Credit

– ***Trade Credit*** *– an agreement where a customer can purchase goods on account, paying the supplier at a later date*

- *Trade credit for normal goods: 30 – 60 – 90 days*
- *Jewelry business: 180 days or longer*

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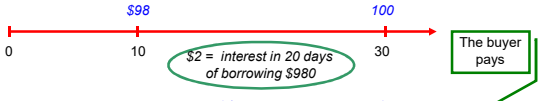
I. Trade Credit (cont'd)

1. Cash discount policy

– ***Cash discount*** *– a reduction in price if payment is made within a specified period*

2/10, net 30

If we fail to take a cash discount, what is the cost ?



– *The interest rate of $980 = 20/980 = 2.0408%*

– ***Cost of failing to take a discount = 2.0408% x 360 / 20= 36.72%***

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- Cos of failing to take a cash discount =

Discount%/(100%-discount%) x 360 / (Final due date – discount period)

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Ex 1

- Compute the cost of not taking the following cash discounts

a./ 3/13, net 180

b./ 2/10, net 45

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I. Trade Credit (cont'd)

1. Cash discount policy (cont'd)

1. **Cash Discounts** You place an order for 300 units of inventory at a unit price of $115. The supplier offers terms of 1/10, net 30.
   - **a.** How long do you have to pay before the account is overdue? If you take the full period, how much should you remit?
   - **b.** What is the discount being offered? How quickly must you pay to get the discount? If you do take the discount, how much should you remit?
   - **c.** If you don't take the discount, how much interest are you paying implicitly? How many days' credit are you receiving?

5. **Terms of Sale** A firm offers terms of 2/10, net 35. What effective annual interest rate does the firm earn when a customer does not take the discount? Without doing any calculations, explain what will happen to this effective rate if:
   - **a.** The discount is changed to 3 percent.
   - **b.** The credit period is increased to 60 days.
   - **c.** The discount period is increased to 15 days.

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I. Trade Credit (cont'd)

2. Net trade credit

Positive Net trade Credit — *Account receivables > Account payable*

Negative Net trade Credit — *Account receivables < Account payable*

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I. Trade Credit (cont'd)

2. Net trade credit *(cont'd)*

Company

- *Average daily sales: $5,000, and collected in 30 days*
- *Average daily purchase: $4,000, and a 25-day average payment period*

– *Average account receivable: $150,000*
– *Average account payable: $100,000*
} *$50,000 more in credit is extended than received*

– *The firm should increase the payable period up to 40 days*

⇒
– *Average account receivable: $150,000*
– *Average account payable: $160,000*
} *Extra $10,000 for other demand*

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II. Bank Credit

– *Banks provide funds for the financing of seasonal needs, product line expansion, and long-term growth*

❖ ***Prime rate***

- *Be the rate a bank charges its most creditworthy customers*
- *Usually increases as a customer's credit risk gets higher*
- *At a certain slack loan periods or in a tight international competition, banks charge top customers less than the prime rate*

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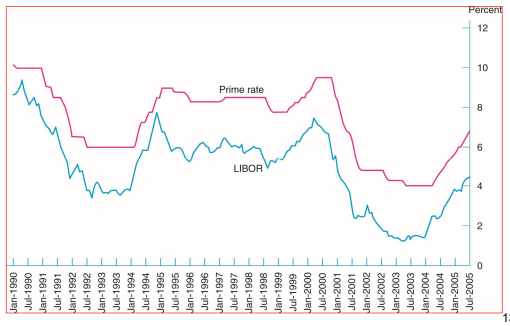
II. Bank Credit (cont'd)



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II. Bank Credit (cont'd)

1. Compensating balances

- ***Compensating balance*** *– a minimum average account balance that must be maintained by the business customer in loans services*
- *The customer will either pay a fee or maintain a compensating balance in relation to loans or other services*

- *Interest rate: 8.5%*
- *Required compensating balance: $20,000 (to offset $100 in service fees)*
- *As interest rate reduce to 4.25%, the required compensating balance rise to $40,000 (to offset $100 in service fees)*

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II. Bank Credit (cont'd)

1. Compensating balances *(cont'd)*

- *The required compensating balance is also computed as a percentage of the customer loans outstanding (20%) or bank commitment toward future loans (10%)*

- *Borrow $100,000*
- *Interest rate: 8%*
- *20% compensating balance requirement*

⇒ ***Paying $8,000 interest to use $80,000 in funds***
The effective interest rate is 10% (not 8%)

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II. Bank Credit (cont'd)

1. Compensating balances (cont'd)

How can the borrowed amount be calculated on the compensating basis ?

$$\text{Amount to be borrowed} = \frac{\text{Amount needed}}{1 - c}$$

Where :

c : compensating balance expressed as a decimal

– *A firm needs $150,000, the compensating balance is 20%. What is the borrowings ?*

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II. Bank Credit (cont'd)

2. Cost of Commercial bank financing

– *$160 interest on a $3,500 loan for one year*

What is the effective rate of the same loan for 120 days ?

$$\text{Effective rate} = \frac{\text{Interest}}{\text{Principal}} x \frac{\text{Days in a year (360)}}{\text{Day loan is outstanding}}$$

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II. Bank Credit (cont'd)

2. Cost of Commercial bank financing (cont'd)

– *$160 interest deducted in advance on a $3,500 one year loan*

What is the effective rate rate on this discounted loan ?

$$\text{Effective rate} = \frac{\text{Interest}}{\text{Principal - Interest}} x \frac{\text{Days in a year (360)}}{\text{Day loan is outstanding}}$$

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II. Bank Credit (cont'd)

3. Interest costs with compensating balances

$$\text{Effective rate with compensating balances} = \frac{\text{Interest rate}}{1 - c}$$

– *$60 interest on a $1,000 one year loan, but can be use only $800 of the funds*

What is the effective rate rate on this loan ?

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II. Bank Credit (cont'd)

4. Rate on Installment loans

– *Borrow $1,000 on a 12-month installment basis at the interest rate of 6%*

– *Regular monthly payment applies to interest and principal*

What is the effective rate rate on this loan ?

$$\text{Effective rate on installment loan} = \frac{2 \text{ x Anuual number of payment x Interest}}{(\text{Total number of payments} + 1) \text{ x Principal}}$$

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III. Financing Through Commercial Paper

– ***Commercial paper*** *– a short-term, unsecured promissory note issued to the public*

– ***Categories of commercial paper:***

- ***Finance Paper*** *– a commercial paper sold directly to the lender*
- ***Dealer Paper*** *– a commercial paper distributed to public through an intermediate dealer network to distribute the paper*

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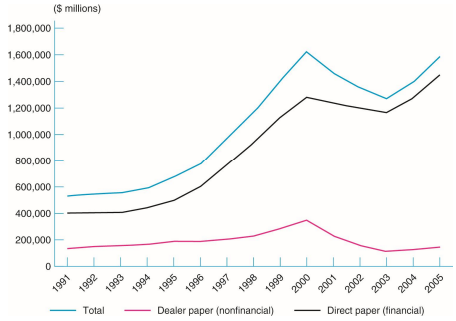
III. Financing Through Commercial Paper (cont'd)



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IV. Foreign Borrowing

- ***Eurodollar loan*** *– a loan denominated in dollars and made by a foreign bank holding dollar deposits*
- ***Libor*** *– a base interest rate paid on such loans for companies of the highest quality*
- *Eurodollar loans at Libor can be cheaper than US domestic loans*
- *International companies are always looking in foreign markets for cheaper ways of borrowing*

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IV. Foreign Borrowing (cont'd)

- *The parent company can take the low interest loan, but bear the high currency risk*

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Thank you for your attention !

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