

# PASSMATE

## THE ULTIMATE CFA GUIDE

Level I CFA

KAPLAN PROFESSIONAL  
MIDDLE EAST

# Study Session 11: Corporate Finance (2)

## Measures of Leverage

### Basics of Leverage and Risk

- **Leverage:** Refers to the effect of fixed elements in cost structure
  - Operating leverage:** Fixed operating expenses
  - Financial leverage:** Fixed financing costs
- **Business risk:** Variability in EBIT from operating leverage (and variability of revenue and expenses)
- **Financial risk:** Additional variability of EPS from fixed interest costs

### Key Metrics

| MEASURE                                   | EXPLANATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Degree of Operating Leverage (DOL)</b> | <ul style="list-style-type: none"> <li>• Sensitivity of a company's operating income to changes in sales</li> <li>• If there is no fixed operating cost, DOL = 1</li> <li>• <math>DOL = \frac{\% \Delta \text{Operating Income}}{\% \Delta \text{Sales}}</math></li> <li>• <math>DOL = \frac{Q(P - V)}{Q(P - V) - \text{Fixed Op Cost}}</math></li> </ul>                                                                                                                                           |
| <b>Degree of Financial Leverage (DFL)</b> | <ul style="list-style-type: none"> <li>• Risk associated with how a company finances its operations.</li> <li>• If there is no interest cost, DFL=1</li> <li>• <math>DFL = \frac{\% \Delta NI}{\% \Delta \text{Operating income}}</math></li> <li>• <math>DFL = \frac{[Q(P - V) - \text{Fixed Op Cost}]}{[Q(P - V) - \text{Fixed Op Cost} - \text{Fixed Financial Cost}]}</math></li> </ul>                                                                                                         |
| <b>Degree of Total Leverage (DTL)</b>     | <ul style="list-style-type: none"> <li>• Combined effect of both operating and financial leverage –</li> <li>• <math>DTL = \frac{\% \Delta \text{Net Income}}{\% \Delta \text{Sales}}</math></li> <li>• <math>DTL = \frac{Q(P - V)}{[Q(P - V) - \text{Fixed Op Cost} - \text{Fixed Financial Cost}]}</math></li> <li>• As number of units sold rise, DTL falls with greater revenues generated and fixed costs being spread over a wider base.</li> <li>• <math>DTL = DOL * DFL</math></li> </ul>   |
| <b>Breakeven Point</b>                    | <ul style="list-style-type: none"> <li>• Amount of sales necessary to produce a net income of zero (total revenue just covers total costs)</li> <li>• <math>BP \text{ (Units)} = \frac{\text{Fixed operating costs} + \text{Fixed financing costs}}{\text{Price} - \text{variable cost per unit}}</math></li> <li>• Operating breakeven quantity of sales</li> <li>• <math>BP \text{ (Units)} = \frac{\text{Fixed operating costs}}{\text{Price} - \text{variable cost per unit}}</math></li> </ul> |

## Working Capital Management

### Sources of Liquidity

| PRIMARY                                                                                                                                                                                                                                                                       | SECONDARY                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Ready cash balances</li> <li>Short-term funds – Trade credit / bank lines of credit / ST investment</li> <li>Cash flow management – Company's effectiveness and degree of centralization of collections / payment processes</li> </ul> | <ul style="list-style-type: none"> <li>Negotiating debt contracts</li> <li>Liquidating assets</li> <li>Bankruptcy protection / reorganization</li> </ul> |

### Drags and Pulls on Liquidity

| DRAGS                                                                                                                         | PULLS                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Uncollectible receivables</li> <li>Obsolete inventory</li> <li>Tight credit</li> </ul> | <ul style="list-style-type: none"> <li>Making advance payments</li> <li>Reduced credit limit from suppliers</li> <li>Limits on short-term lines of credit</li> </ul> |
| KEY LIQUIDITY CYCLE                                                                                                           | EXPLANATION                                                                                                                                                          |
| <b>Operating Cycle</b>                                                                                                        | No. of Days of Receivables + No. of Days of Inventory in hand                                                                                                        |
| <b>Cash Conversion Cycle</b>                                                                                                  | No. of Days of Receivables + No. of Days of Inventory in hand – No. of Days of Payables                                                                              |

### Yields on Short-term Securities:

- $\% \text{ discount} = \frac{\text{Face Value} - \text{Price}}{\text{Face Value}}$
- Discount basis (bank discount) yield =  $\% \text{ discount} \times \frac{360}{\text{Days}}$
- Money market yield =  $\left( \frac{\text{Face Value} - \text{Price}}{\text{Price}} \right) \times \left( \frac{360}{\text{Days}} \right)$
- Bond Equivalent Yield =  $\left( \frac{\text{Face Value} - \text{Price}}{\text{Price}} \right) \times \left( \frac{365}{\text{Days}} \right)$

Above BEY formula appears again in Fixed Income reading

### Evaluating Performance

- Receivables:** Trade-off between credit terms and sales
- Inventories:** Too little can lead to stock-outs, too much increases carrying costs
- Payables:** Early payment can take advantage of discounts but gives up potential interest on cash; late payment increases interest costs, can damage supplier relationships

## Short-term Investments

Invest excess cash in **short-term securities**:

- U.S. Treasury bills
- Short-term federal agency securities
- Bank certificates of deposit
- Banker's acceptances
- Time deposits
- Repurchase agreements
- Commercial paper
- Money market mutual funds
- Adjustable-rate preferred stock

## Sources of Short-term Funding

- **Lines of credit**
  - Committed: Requires fee
  - Revolving: Fee, larger, strongest (U.S.)
  - Uncommitted: Less reliable, no fee (U.S.)
- **Commercial paper**: Large, strong credit
- **Bankers' acceptances**: Import/export
- **Factoring**: Smaller users, higher fees
- **Nonbank finance companies**: Weak credit

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