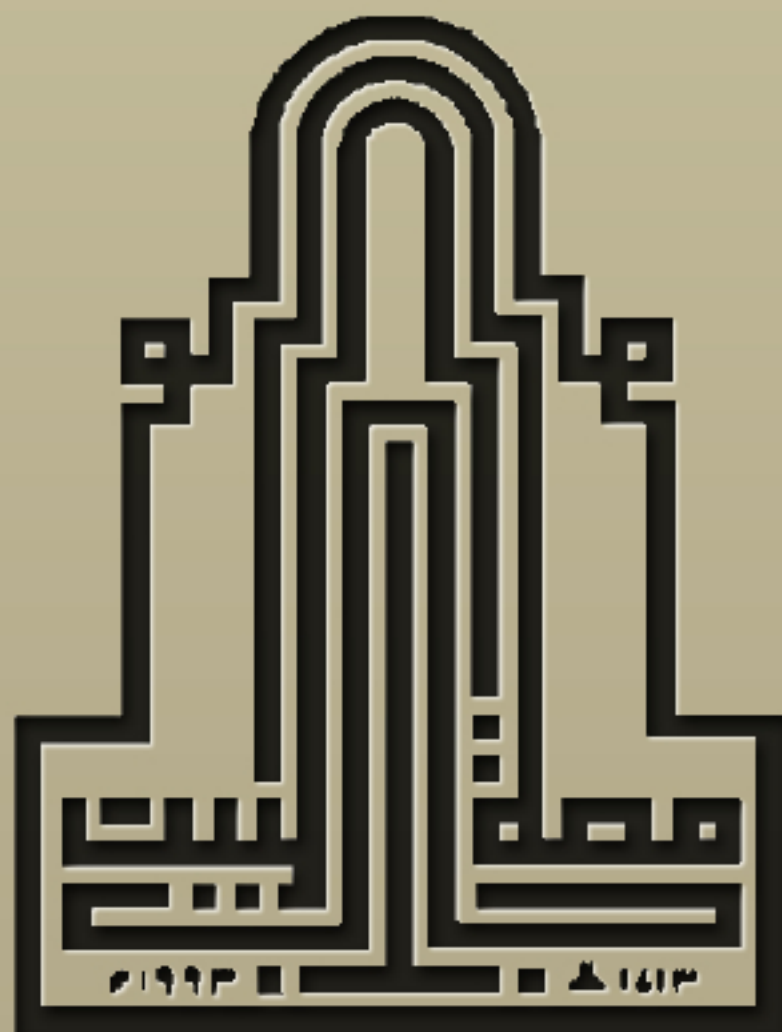


مكتبة

” خذْ وأعطي ” الإلكترونية

جامعة آل البيت " كلية الإقتصاد "

مجموعة طلابية تسعى لتوفير كل ما يلزم طلاب
كلية إدارة المال والاعمال من مواد وشروحات واسئلة بصورة الكترونية



CORPORATE FINANCE

(0503362)

Part (1)

Sufian I. HRAZE, Lecturer

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Second Semester 2012/2013

Department of Finance and Banking

Faculty of Finance and Business Administration

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Part 1

Key Notes

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Part-1

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Chapter

1

Corporate Finance: An Overview

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Part-1 *** Page-3***

Part 1

Corporate Finance: An Overview

☞ **Chapter Outline:**

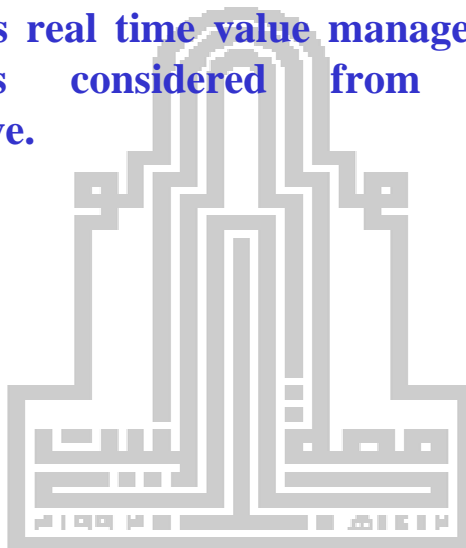
- ❖ **Concept.**
- ❖ **Fields and Career Opportunities.**
- ❖ **Financial Ethics.**
- ❖ **Time Value of Money.**

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What is FINANCE?

- ☞ **Finance is real time value management. Where value is considered from stakeholders perspective.**



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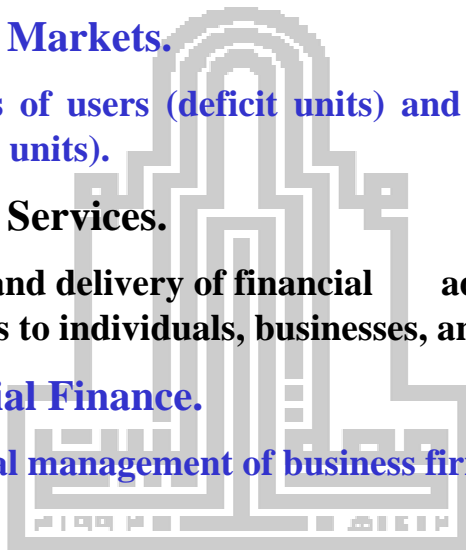
Part-1

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Part 1

Specialization in Finance

- ☞ **Financial Markets.**
 - **Markets of users (deficit units) and savers of funds (surplus units).**
- ☞ **Financial Services.**
 - **Design and delivery of financial advice and products to individuals, businesses, and government.**
- ☞ **Managerial Finance.**
 - **Financial management of business firms.**



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Part-1

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Career in Finance

- ☞ **Financial Analyst.**
- ☞ **Project finance manager.**
- ☞ **Cash manager.**
- ☞ **Capital budgeting analyst/ manager.**
- ☞ **Credit analyst/ manager.**
- ☞ **Pension fund manager.**

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Part-1

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Financial Manager's Decision

- ☞ **Most important of the financial managers' decisions:**
 - **Investment decisions.**
 - **Financing Decisions.**
 - **Assets Management Decision.**
 - **Dividend Decisions.**

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Part-1

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Some other Practical Decisions

- ☞ **Capital budgeting**
 - What long-term investments or projects should the business take on?
- ☞ **Capital structure**
 - How should we pay for our assets?
 - Should we use debt or equity?
- ☞ **Working capital management**
 - How do we manage the day-to-day finances of the firm?

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Importance of Managerial Finance

- ☞ Most business decisions cannot be made without considering the impact on the financial well-being of the firm.
- ☞ Must determine whether the funds needed to implement decisions are available.

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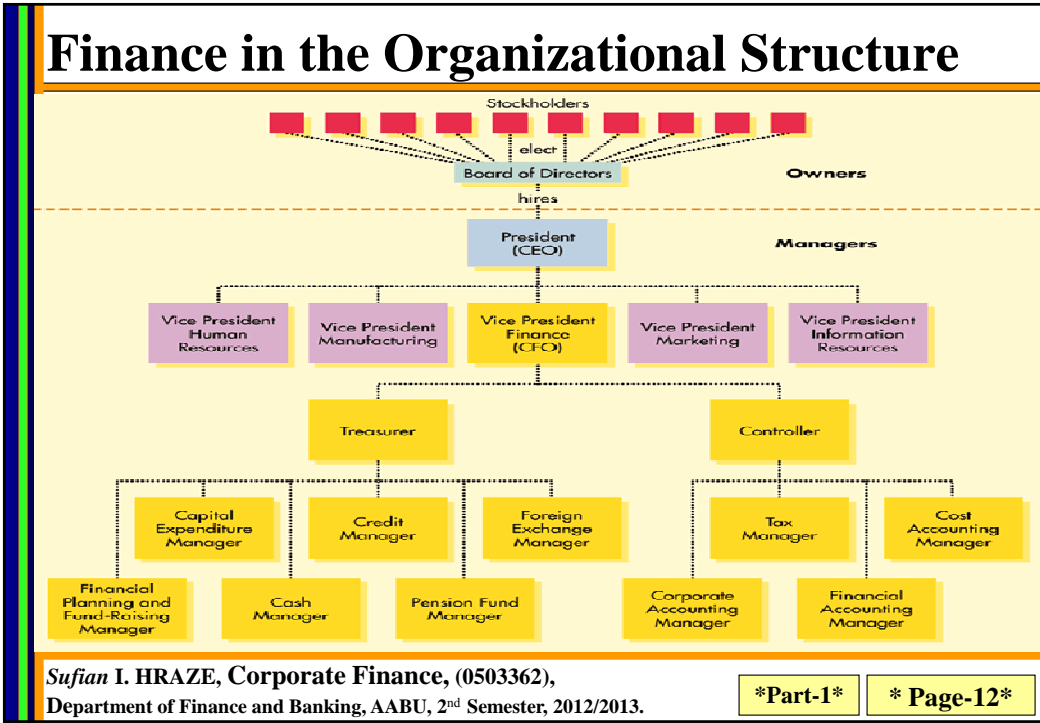
*** Page-10***

...Importance of Managerial Finance		
Black Iris Company Balance Sheet As of December 31, 2011		
Maximize wealth not profit!	Assets:	Liabilities & Equity:
	Current Assets	Current Liabilities
	Cash & M.S.	Accounts payable
	Accounts receivable	Notes Payable
Investment Decisions utilize funds	Inventory	Total Current Liabilities
	Total Current Assets	Long-Term Liabilities
	Fixed Assets:	Total Liabilities
	Gross fixed assets	Equity:
Debts are paid by cashflow not income!	Less: Accumulated dep	Common Stock
	Goodwill	Paid-in-capital
	Other long-term assets	Retained Earnings
	Total Fixed Assets	Total Equity
Total Assets		Total Liabilities & Equity

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Part 1



Financial Ethics

- ☞ **Treatment of Agency Conflicts.**
- ☞ **Good Corporate Governance.**
- ☞ **Social Responsibility.**

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Part-1

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Part 1

Agency Issues in Business

- ☞ **An agent is an individual authorized by another person, called the principal, to act in the latter's behalf.**
- ☞ **Management acts as an agent for the owners (shareholders) of the firm.**

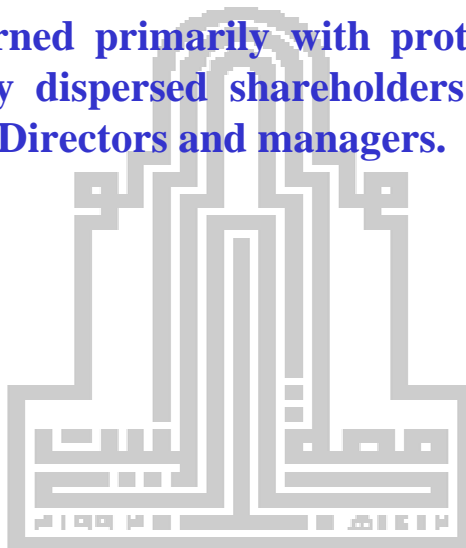
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Corporate Governance

- ☞ **It's concerned primarily with protecting weak and widely dispersed shareholders against self-interested Directors and managers.**



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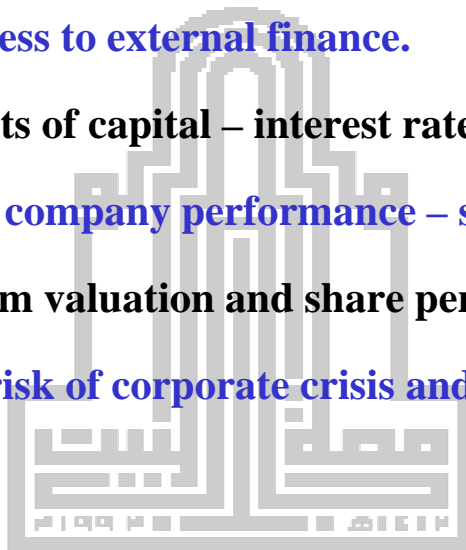
Part-1

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Part 1

Why Corporate Governance?

- ☞ **Better access to external finance.**
- ☞ **Lower costs of capital – interest rates on loans.**
- ☞ **Improved company performance – sustainability.**
- ☞ **Higher firm valuation and share performance.**
- ☞ **Reduced risk of corporate crisis and scandals.**



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Corporate Governance Parties

- ☞ **Shareholders – who own the company.**
- ☞ **Directors – guardians of the company's assets for the shareholders.**
- ☞ **Managers who use the company's assets.**

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Part 1

Four Pillars of Corporate Governance

- ☞ **Accountability.**
- ☞ **Fairness.**
- ☞ **Transparency.**
- ☞ **Independence.**

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Social Responsibility

- ☞ Firms should provide a safe environment, avoid air pollution and produce safe products.
- ☞ Incentives against for firms to act in a socially responsible manner are:
 - Disadvantage in attracting funds due to extra costs incurred.
 - Inability to compete due to higher prices of products.
 - Constraints by capital market factors.
- ☞ Therefore...Social Responsibility actions should be enforced on a mandatory rather than a voluntary basis.

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Part-1

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Chapter

2


Long-Term Financial Planning and Growth

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Part-1 *** Page-21***

Part 1

Long-Term Financial Planning and Growth

 **Chapter Outline:**

- **What is Financial Planning?**
- **Financial Planning Models: A First Look**
- **The Percentage of Sales Approach**
- **External Financing and Growth**
- **Some Caveats Regarding Financial Planning Models**

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Part-1 *** Page-22***

Financial Planning Model

- ☞ Sales Forecast
 - ❖ Drives the model
- ☞ Pro Forma Statements
 - ❖ The output summarizing different projections
- ☞ Asset Requirements
 - ❖ Investment needed to support sales growth
- ☞ Financial Requirements
 - ❖ Debt and dividend policies

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Part-1

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Part 1

A Simple Financial Planning Model

Recent Financial Statements

Income statement		Balance sheet	
Sales	\$100	Assets	\$50
Costs	(\$90)	Debt	\$20
Net Income	\$10	Equity	\$30
		Total	\$50

- ☞ Assume that:
 - sales are projected to rise by 25%
 - the debt/equity ratio stays at 2/3
 - costs and assets grow at the same rate as sales

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Part-1

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...A Simple Financial Planning Model

Pro Forma Financial Statements

Income statement		Balance sheet	
Sales	\$ _____	Assets	\$ _____
Costs	\$ _____	Debt	\$ _____
Net	\$ _____	Equity	\$ _____
		Total	\$ _____

Part 1

The Percentage of Sales Approach

Income Statement
(projected growth = 30%)

Original		Pro forma	
Sales	\$2000	\$ _____	(+30%)
Costs	(1700)	(2210)	(= 85% of sales)
EBT	300	\$ _____	
Taxes (34%)	(102)	(132.6)	
Net income	198	257.4	
Dividends	(66)	(85.8)	(= 1/3 of net)
Add. to ret.	132	\$ _____	(= 2/3 of net)
Earnings			

... The Percentage of Sales Approach

Preliminary Balance Sheet

	Orig.	% of sales		Orig.	% of sales
Cash	\$100	5%	A/P	\$60	3%
A/R	120	6%	N/P	140	n/a
Inv	140	7%	Total	200	n/a
Total	\$360	18%	LTD	\$200	n/a
NFA	640	32%	C/S	10	n/a
			R/E	590	n/a
			OE	\$600	n/a
Total	\$1000	50%	Total	\$1000	n/a

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Part-1

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Part 1

Pro Forma Statements

The Percentage of Sales Approach, Continued

	Proj.	(+/-)		Proj.	(+/-)
Cash	\$ _____	\$ _____	A/P	\$ _____	\$ _____
A/R	_____	_____	N/P	_____	_____
Inv	182	42	Total	\$ _____	\$ _____
Total	\$ _____	\$108	LTD	200	_____
NFA	832	192	C/S	10	_____
			R/E	761.6	_____
				\$771.6	\$ _____
Total	\$ _____	\$ _____	Total	\$1171.6	\$ _____

Financing needs are \$300, but internally generated sources are only \$171.60. The difference is *external financing needed*:

$$EFN = \$300 - 171.60 = \$128.4$$

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Part-1

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Pro Forma Statements

☞ **The Percentage of Sales Approach, Continued**

	Proj.	(+/-)		Proj.	(+/-)
Cash	\$	\$	A/P	\$	\$
A/R			N/P		
Inv			Total	\$	\$
Total	\$	\$	LTD		
NFA			C/S		
			R/E		
				\$	\$
Total	\$1450	+\$450	Total	\$1450	+\$450

☞ **Financing needs are \$450, but internally generated sources are only \$191.40. The difference is *external financing needed*:**

EFN = \$450 - 191.40 = \$258.6

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Part 1

Pro Forma Statements (concluded)

☞ **One possible financing strategy:**

- ❖ Borrow short-term first
- ❖ If needed, borrow long-term next
- ❖ Sell equity as a last resort

☞ **Constraints:**

- ❖ Current ratio must not fall below 2.0.
- ❖ Total debt ratio must not rise above 0.40.

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Part-1

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The Percentage of Sales Approach

☞ Given the following information, determine maximum allowable borrowing for the firm:

- ❖ $\$468/CL = 2.0$ implies maximum $CL = \$$ _____
Maximum short-term borrowing = $\$234 - \$$ _____ = $\$$ _____
- ❖ $0.40 * \$1300 = \$$ _____ = maximum debt
 $\$520 -$ _____ = $\$$ _____ = maximum long-term debt
Maximum long-term borrowing = $\$286 -$ _____ = $\$$ _____
- ❖ Total new borrowings = $\$16 + 86 = \$$ _____
Shortage = $\$$ _____ - 102 = $\$$ _____

☞ A possible plan:

New short-term debt	= \$8.0
New long-term debt	= 43.0
New equity	= 59.4
	<u>\$110.4</u>

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Part 1

...The Percentage of Sales Approach

Completed Pro Forma Balance Sheet

Proj.	(+/-)	Proj.	(+/-)
Cash \$130	\$ 30	A/P \$ 78	\$ 18
A/R 156	36	N/P 148	8
Inv 182	42	Total \$226	\$ 26
Total \$468	\$108	LTD 243	43
NFA 832	192	C/S 69.4	59.4
		R/E 761.6	171.6
		OE \$831	\$231
Total \$1300	\$300	Total \$1300	\$300

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Part-1

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...The Percentage of Sales Approach

So far, 100% capacity has been assumed. Suppose that, instead, current capacity use is 80%.

☞ At 80% capacity:

- ❖ $\$2000 = 0.80 \times \text{full capacity sales}$
- ❖ $\$2000 / 0.80 = \$ \underline{\hspace{1cm}} = \text{full capacity sales}$

☞ At full capacity, fixed assets to sales will be:

- ❖ $\$640 / \$ \underline{\hspace{1cm}} = 25.60\%$

☞ So, NFA will need to be just:

- ❖ $25.60\% \times \$2600 = \$ \underline{\hspace{1cm}}$, not \$832
- ❖ $\$832 - \$665.60 = \$ \underline{\hspace{1cm}}$ less than originally projected

☞ In this case, original EFN is substantially overstated:

- ❖ New EFN = $\$110.40 - \$166.40 = -\$ \underline{\hspace{1cm}}$.

So, the impact of different capacity assumptions is $\underline{\hspace{1cm}}$?

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Part 1

The Percentage of Sales Approach

☞ Given a sales forecast and an estimated profit margin, what addition to retained earnings can be expected?

Let:

- S = previous period's sales
- g = projected increase in sales
- PM = profit margin
- b = earnings retention ("plowback") ratio

☞ The expected addition to retained earnings is:

$$S(1 + g) \times PM \times b$$

This represents the level of *internal financing* the firm is expected to generate over the coming period.

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Part-1

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...The Percentage of Sales Approach

☞ What level of asset investment is needed to support a given level of sales growth? For simplicity, assume we are at full capacity. Then the indicated increase in assets required equals

$$A * g$$

where A = ending total assets from the previous period.

☞ If the required increase in assets exceeds the internal funding available (i.e., the increase in retained earnings), then the difference is the
External Financing Needed (EFN).

Part 1

Growth and External Financing

☞ Key issue:

❖ What is the relationship between *sales growth* and *financing needs*?

Recent Financial Statements

Income statement

Sales	\$100
Costs	(90)
Net	<u>\$ 10</u>

Balance sheet

Assets	\$50	Debt	\$20
		Equity	30
Total	<u>\$50</u>	Total	<u>\$50</u>

...Growth and External Financing

☞ Assume that:

- ❖ costs and assets grow at the same rate as sales
- ❖ 60% of net income is paid out in dividends
- ❖ no external financing is available (debt or equity)

☞ Q. What is the *maximum* growth rate achievable?

☞ A. The maximum growth rate is given by

$$\text{Internal growth rate (IGR)} = \frac{ROA * b}{1 - (ROA * b)}$$

- ❖ ROA = \$10/___ = ___ %
- ❖ b = 1 - .___ = .___
- ❖ IGR = $\frac{(20\% * 0.40)}{[1 - (20\% * 0.40)]}$
= $.08/.92 = 8.7\%$ (= 8.695656...%)

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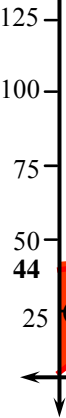
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Part 1

Growth and Financing Needed

Assets needs
and retained
earnings (\$)



Increase
in assets
required

Projected
addition
to retained
earnings

Projected
growth in
sales (%)

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Part-1

* Page-38*

The Internal Growth Rate

☞ Assume sales *do* grow at 8.7 percent. How are the financial statements affected?

Pro Forma Financial Statements

Income statement		Balance sheet		
Sales	\$108.70	Assets	\$54.35	Debt \$20.00
Costs	(97.83)			Equity _____
Net Income	<u>\$10.87</u>	Total	<u>\$54.35</u>	Total \$ _____
Dividends	(\$6.52)			
Add to R/E	_____			

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Part 1

...Internal Growth Rate

☞ Now assume:

- ❖ no external *equity* financing is available
- ❖ the current debt/equity ratio is optimal
- ☞ Q. What is the *maximum* growth rate achievable now?
- ☞ A. The maximum growth rate is given by

$$\text{Sustainable growth rate (SGR)} = \frac{ROE * b}{1 - (ROE * b)}$$

$$\begin{aligned} \text{❖ ROE} &= \$ __ / __ = 1/3 (= 33.333\%) \\ \text{❖ b} &= 1.00 - .60 = .40 \\ \text{❖ SGR} &= (1/3 * 0.40) / [1 - (1/3 * 0.40)] \\ &= 15.385\% (= 15.38462... \%) \end{aligned}$$

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Part-1

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The Sustainable Growth Rate

☞ Assume sales *do* grow at 15.385 percent:

Pro Forma Financial Statements

Income statement

Sales	\$115.38
Costs	(103.85)
Net	<u>\$11.53</u>
Dividends	\$6.92
Add to R/E	_____

Balance sheet

Assets	\$57.69	Debt \$	_____
		Equity	_____
Total	<u>\$57.69</u>	Total \$	<u>_____</u>
EFN \$	_____		

If we borrow the \$3.08, the debt/equity ratio will be:

$$\frac{\$ \quad}{\quad} = \quad$$

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Part 1

The Sustainable Growth Rate (concluded)

☞ The rate of *sustainable growth* depends on four factors:

- ❖ *Profitability* (profit margin)
- ❖ *Dividend Policy* (dividend payout)
- ❖ *Financial policy* (debt-equity ratio)
- ❖ _____

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Part-1

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Summary of Internal and Sustainable Growth Rates

I. Internal Growth Rate

$$\text{IGR} = (\text{ROA} \times b) / [1 - (\text{ROA} \times b)]$$

where: **ROA** = return on assets = Net income/assets

b = earnings retention or “plowback” ratio

The IGR is the maximum growth rate that can be achieved with no external financing of any kind.

II. Sustainable Growth Rate

$$\text{SGR} = (\text{ROE} \times b) / [1 - (\text{ROE} \times b)]$$

where: **ROE** = return on equity = Net income/equity

b = earnings retention or “plowback” ratio

The SGR is the maximum growth rate that can be achieved with no external equity financing while maintaining a constant debt/equity ratio.

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Part-1

* Page-44*

CORPORATE FINANCE

(0503362)

Part (1)

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