

Chapter 15

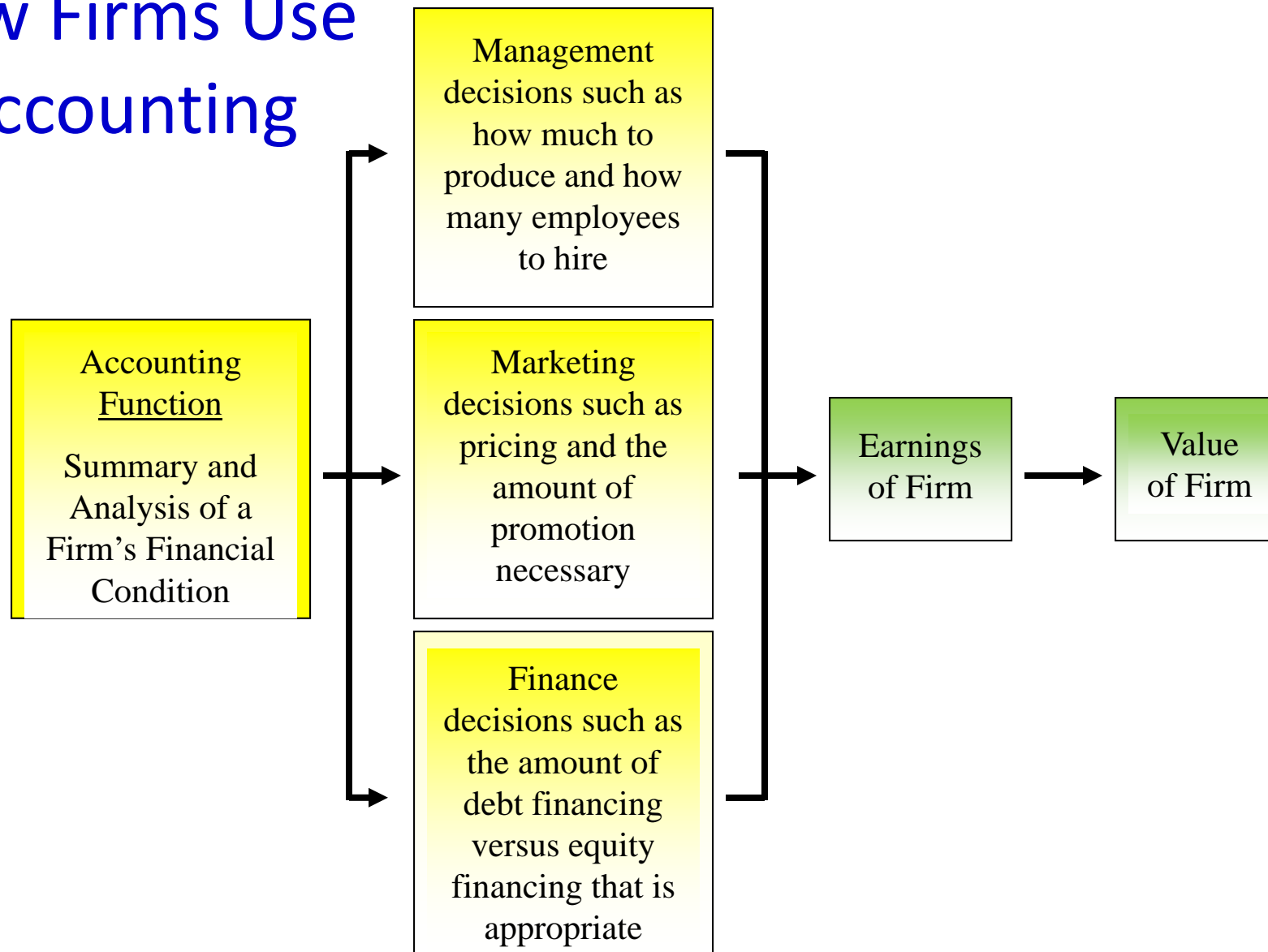
Accounting & Financial Analysis

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Chapter Outline

- How Firms Use Accounting
- Responsible Financial Reporting
- Interpreting Financial Statements
- Ratio Analysis

How Firms Use Accounting



How Firms Use Accounting

Information for **External** Users:

- Investors (Shareholders) & Potential Investors
- Creditors--Banks
- Government Regulatory Agencies--SEC
- Taxing Authorities--IRS

How Firms Use Accounting

Information for **Internal** Users (management):

- Prepare Budgets & Projections
- Evaluate Efficiency of Departments/Divisions
- Expansion Decisions
- Product-line Decisions
- Bonus Decisions

Responsible Financial Reporting

Audit: a formal evaluation of the records used to prepare a firm's financial statements

Internal Auditors

Employees who analyze and evaluate the company

External Auditors

Public accountants who work for an independent accounting firm

Responsible Financial Reporting

- The Role of the Board of Directors
- The Role of the Sarbanes-Oxley Act
 - The CFO and other managers of the firm must file an internal control report along with each annual report
 - The CEO and CFO must certify that the audited statements fairly represent the operations and financial conditions of the firm
 - Major fines or prison terms are imposed on employees who mislead investors or hide evidence

Interpreting Financial Statements

Income Statement

Indicates the revenue, costs, and earnings of a firm **over a period of time**

Balance Sheet

Reports the book value of assets, liabilities, and owner's equity of a firm **at a given point in time**

Interpreting Financial Statements

- Income Statement
 - Net sales: total sales adjusted for any discounts or refunds
 - Cost of goods sold: the cost of materials used to produce the goods that were sold (or cost of goods purchased in a finished state)
 - Gross profit (or gross margin): net sales minus the cost of goods sold
 - Operating expenses: composed of selling expenses and general and administrative expenses

Interpreting Financial Statements

- Income Statement cont'd
 - Earnings before interest and taxes (EBIT): gross profit minus operating expenses
 - Earnings before taxes: earnings before interest and taxes minus interest expenses
 - Net income (earnings after taxes): earnings before taxes minus taxes

Tootsie Roll Industries, Inc. Financial Statements 2012



Tootsie Roll Industries, Inc. Income Statements (in 000's)

	<u>2012</u>	<u>2011</u>
Net sales revenue	\$549,870	\$532,505
Costs of goods sold	<u>366,549</u>	<u>366,263</u>
Gross profit	\$183,321	\$166,242
Selling, gen'l & admin expenses	113,842	108,155
Other operating (income)/expenses	<u>(4,822)</u>	<u>(2,946)</u>
Total operating expenses	<u>\$109,020</u>	<u>\$105,209</u>
Earnings before interest & income taxes	\$ 74,301	\$ 61,033
Interest expense	<u>137</u>	<u>121</u>
Earnings before income taxes	\$ 74,164	\$ 60,912
Income taxes (≈30%)	<u>22,160</u>	<u>16,974</u>
Net income	\$ 52,004 =====	\$ 43,938 =====

Interpreting Financial Statements

- Balance Sheet

Basic accounting equation:

$\text{Assets} = \text{Liabilities} + \text{Owners' Equity (ALOE)}$

- Asset: anything owned by a firm.
- Liability: anything owed by a firm.
- Owners' Equity: what's left for the owners

Interpreting Financial Statements

- Balance Sheet cont'd
 - Current assets: assets that will be converted into cash within one year
 - Fixed assets: assets that will be used by a firm for more than one year
 - Depreciation: a reduction in the value of fixed assets to reflect deterioration in the assets over time

Interpreting Financial Statements

- Balance Sheet cont'd
 - Accounts payable: money owed by a firm for the purchase of materials
 - Notes payable: short-term loans to a firm made by creditors such as banks
 - Owners' equity: includes the par (or stated) value of all common stock issued, additional paid-in capital, and retained earnings

Tootsie Roll Industries, Inc. Balance Sheets (in 000's)

Assets	<u>2012</u>	<u>2011</u>
<i><u>Current assets</u></i>		
Cash & cash equivalents	\$ 63,862	\$78,612
Marketable securities (Investments)	18,746	10,895
Accounts receivable & other receivables	47,636	45,286
Inventories	62,383	71,760
Other current assets	<u>4,614</u>	<u>5,648</u>
Total current assets	\$197,241	\$212,201
<i><u>Fixed assets</u></i>		
Land	\$ 21,687	\$21,939
Buildings, machinery & equipment	442,040	433,158
Less: accumulated depreciation	<u>262,437</u>	<u>242,935</u>
Net fixed assets	\$ 201,290	\$212,162
Other assets	<u>448,206</u>	<u>433,493</u>
Total assets	\$ 846,737	\$857,856
	=====	=====
<u>Liabilities & Owner's Equity</u>		
<i><u>Current liabilities</u></i>		
Accounts payable	\$ 8,942	\$10,683
Dividends, notes, & taxes payable	<u>51,823</u>	<u>48,246</u>
Total current liabilities	\$ 60,765	\$58,929
Long-term debt	136,157	132,992
<i><u>Common stockholder's equity</u></i>		
Common stock	\$ 586,052	\$571,619
Retained earnings	<u>63,763</u>	<u>94,316</u>
Total owner's equity	\$ 649,815	\$665,935
Total liabilities and owner's equity	\$ 846,737	\$857,856
	=====	=====

Ratio Analysis

An evaluation of the relationships between financial statement variables.

- Liquidity
- Efficiency
- Profitability
- Leverage

Liquidity Ratios

Measures a firm's ability to meet its short-term obligations

➤ Current ratio

measures the amount of current assets the company has to satisfy each \$ of current liability

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Acid-Test ratio or Quick ratio

$$\frac{\text{Cash} + \text{Marketable Securities} + \text{Accounts Receivable}}{\text{Current Liabilities}}$$

Efficiency Ratios

Measures how well the firm is managing its assets

➤ Inventory Turnover ratio

measures the speed of converting inventory into sales

$$\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

➤ Asset Turnover ratio

measures the amount of sales generated by every \$ invested in assets

$$\frac{\text{Net Sales}}{\text{Average Total Assets}}$$

Profitability Ratios

Measures a firm's ability to generate revenue in excess of expenses

➤ Return on Assets

measures the amount of net income generated by every \$ invested in assets

$$\frac{\text{Net Income}}{\text{Average Total Assets}}$$

Profitability Ratios

➤ Return on Sales (Net Profit Margin)

measures how much profit was earned for each sales \$

$$\frac{\text{Net Income}}{\text{Net Sales}}$$

➤ Return on Equity

measures how much profit was earned for each \$ invested by owners

$$\frac{\text{Net Income}}{\text{Average Owners' Equity}}$$

Financial Leverage Ratio

An important indicator of a firm's financial strength

➤ Debt-to-Equity

measures the degree to which a firm relies on borrowed funds
vs. from owners

$$\frac{\text{Total Liabilities}}{\text{Total Owners' Equity}}$$

Ratio Analysis

- Compare ratios with prior periods, competitors, and industry averages
- Limitations of Ratio Analysis
 - Comparing some firms with an industry average can be difficult because the firms operate in more than one industry
 - Accounting practices vary among firms
 - Firms with seasonal swings in sales may show large deviations from the norm at certain times but not at others