

Financial Information and Accounting Concepts

BA291

Learning Objectives

1. Define *accounting* and describe the roles of private and public accountants
2. Explain the impact of accounting standards such as GAAP and the Sarbanes-Oxley Act on corporate accounting
3. Describe the *accounting equation* and explain the purpose of *double-entry bookkeeping* and the *matching principle*
4. Identify the major financial statements and explain how to read a balance sheet
5. Explain the purpose of the income statement and the statement of cash flows
6. Explain the purpose of ratio analysis and list the four main categories of financial ratios

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Understanding Accounting

Accounting

Measuring, interpreting, and communicating financial information to support internal and external decision-making

Internal

- ☐ Shareholders (current owners)
- ☐ Management
- ☐ Operational team

Managerial Accounting

The area of accounting concerned with preparing data for use by managers within the organization

External

- ☐ New investors
- ☐ Creditors
- ☐ Business partners

Financial Accounting

The area of accounting concerned with preparing financial information for users outside the organization

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Accountants

Private Accountants

In-house accountants employed by organizations and businesses other than a public accounting firm

Also called *corporate accountants*

- **Controller**
The highest-ranking accountant in a company, responsible for overseeing all accounting functions
- **Certified Public Accountants (CPAs)**
Professionally licensed accountants who meet certain requirements for education and experience and who pass a comprehensive examination

Public Accountants

Professionals who provide accounting services to other businesses and individuals for a fee

Audit

Formal evaluation of the fairness and reliability of a client's financial statements. Performed by Auditors.

External Auditors

Independent accounting firms that provide auditing services for public companies



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The Rules of Accounting

GAAP (Generally Accepted Accounting Practices)

Standards and practices used by publicly held corporations in the United States and a few other countries in the preparation of financial statements; on course to converge with IFRS

International Financial Reporting Standards (IFRS)

Accounting standards and practices used in many countries outside the United States

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Sarbanes-Oxley

Sarbanes-Oxley

The informal name of comprehensive legislation designed to improve integrity and accountability of financial information



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The Key Financial Statements

Balance Sheet: Assets = Liabilities + Equity

- Snapshot of the Org's finances at a specific point in time.

Income Statement: Net Income = Revenue – Expenses

- Org's financial activity over a defined period of time.

Cash Flow Statement: Net In/Out Flow = Cash In – Cash Out

- Cash used by the Org over a defined period of time.
- Assesses the amount, timing, & predictability of cash-inflows & outflows, & are used as the basis for budgeting and business-planning
- One of the most important areas of finances for any organization is cash flow

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The Accounting Equation and Principle

Accounting Equation

The basic accounting equation, stating that assets equal liabilities plus owners' equity

$$\text{Assets} - \text{Liabilities} = \text{Owners' Equity}$$

Double-Entry Bookkeeping

A method of recording financial transactions that requires a debit entry and credit entry for each transaction to ensure that the accounting equation is always kept in balance

Matching Principle

The fundamental principle requiring that expenses incurred in producing revenue be deducted from the revenues they generate during an accounting period

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The Accounting Equation and Principle

- **Accrual basis**
 - ↳ An accounting method in which revenue is recorded when a sale is made and an expense is recorded when it is incurred
- **Cash basis**
 - ↳ An accounting method in which revenue is recorded when payment is received and an expense is recorded when cash is paid

Depreciation

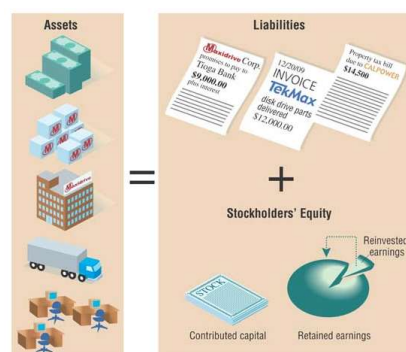
An accounting procedure for systematically spreading the cost of a tangible asset over its estimated useful life

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Balance sheet

Report the financial position of an accounting entity at a particular point in time

1. **Assets** - What it owns
 - Any things of value owned or leased by a business
2. **Liabilities** - What it owes
 - Claims against a firm's assets by creditors
3. **Owner's Equity** - Its net worth (assets - liabilities)
 - The portion of a company's assets that belongs to the owners after obligations to all creditors have been met



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Assets

- Things that a company owns that have value
- This typically means they can either be sold or used by the company to make products or provide services that can be sold
- Assets include physical property, such as plants, trucks, equipment and inventory. It also includes things that can't be touched but nevertheless exist and have value, such as trademarks and patents. And cash itself is an asset. So are investments a company makes.
- Current assets vs. fixed assets
 - ✓ **Current assets:** cash, short-term investment, accounts receivable, inventories
 - ✓ **Fixed assets:** property, land, equipment, long-term investment, intangible assets (goodwill)

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Liabilities

- Amount of money that a company owes to others
- This includes all kinds of obligations, like money borrowed from a bank to launch a new product, rent for use of a building, money owed to suppliers for materials, payroll a company owes to its employees, environmental cleanup costs, or taxes owed to the government. Liabilities also include obligations to provide goods or services to customers in the future
- Current liabilities vs. long-term liabilities
 - ✓ **Current liabilities:** short-term loan, accounts payable, advance received
 - ✓ **Long-term liabilities:** long-term loan, lease obligation, due to subsidiary / shareholders

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Shareholder's Equity (Owner's Equity)

- Also call capital or net worth
- Money that would be left if a company sold all of its assets and paid off all of its liabilities. This leftover money belongs to the shareholders, or the owners, of the company
- Elements:
 - ✓ **Capital:** common equity and preferred equity
 - ✓ **Retain earning** - portion of net income of a corporation that is retained by the corporation rather than distributed to shareholders as dividend

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Kraft Foods Group, Inc. Consolidated Balance Sheet (\$ in millions of dollars)

	December 31 2011	December 31 2012		December 31 2011	December 31 2012
ASSETS					
Cash And Equivalents	\$4,623	\$3,897	Long-Term Debt	-	2,000
Accounts Receivable	903	1,089	Capital Leases	27	-
Inventory	1,943	1,928	Pension & Other Post-Retire. Benefits	117	123
Deferred Tax Assets, Curr.	232	420	Def. Tax Liability, Non-Curr.	1,594	288
Other Current Assets	194	131	Other Non-Current Liabilities	641	405
Total Current Assets	7,895	7,465	Total Long-Term Liabilities	2,379	2,816
Net Property, Plant & Equipment	4,278	4,204	Total Liabilities	4,951	6,422
Goodwill	11,316	11,346	Common Stock	16,713	16,713
Other Intangibles	2,630	2,631	Retained Earnings	5,073	3,298
Other Long-Term Assets	43	325	Treasury Stock	-	(2)
Total Fixed Assets	18,267	18,506	Comprehensive Inc. and Other	(125)	(460)
Total Assets	26,162	25,971	Total Equity	21,661	19,549
LIABILITIES					
Accounts Payable	1,447	1,556	Total Liabilities And Equity	26,612	25,971
Accrued Exp.	817	1,194			
Curr. Port. of LT Debt	25	5			
Curr. Port. of Cap. Leases	8	-			
Other Current Liabilities	275	851			
Total Current Liabilities	2,572	3,606			

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Income Statement

The income statement measure of performance of a business, revenues less expenses during the accounting period

Also known as a profit and loss statement

1. Revenue
2. Expenses
3. Net income (revenues - expenses)



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Elements of Income Statement

Revenue: topline, sales

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Cost of Goods Sold: the cost of producing or acquiring a company's products for sale during a given period

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Gross Profit: the amount remaining when the cost of goods sold is deducted from net sales

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Operating expenses: all costs of operation that are not included under cost of goods sold.

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Net Income: profit earned or loss incurred by a firm, determined by subtracting expenses from revenues

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Kraft Foods Group, Inc.
Consolidated Income Statement
(\$ in millions of dollars)

	December 31 2011	December 31 2012
Revenue	\$18,655	\$18,339
Cost Of Goods Sold	12,813	12,499
Gross profit	5,842	5,840
Selling General & Admin Exp.	2,818	2,820
R & D Exp.	198	178
Total Operating Expenses	3,016	2,998
Operating Income	2,826	2,842
Interest Expense	47	8
Other Non-Operating Inc. (Exp.)	52	21
Restructuring Charges	2	360
Income Tax Expense	950	811
Net income	1,775	1,642

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(? in THB)

	2016A	2016A
	A	B
Pizza sold per day	1,000	500
days in a year	365	365
Pizza sold per year	365,000	182,500
Pizza sold (Total)	365,000	182,500
Price per plate	? 100	? 200
Revenue		
Pizza sold (Total)	365,000	182,500
COGS per plate	30	30
COGS		
Gross Profit		
<i>Gross Margin</i>		
SG&A*	? 2,340,000	? 1,020,000
Operating Profit		
<i>Operating Profit Margin (%)</i>		
Tax	6,963,000	9,001,500
Net Income		
<i>Net Profit Margin (%)</i>		

* assumes SGA is fixed cost (i.e. not vary with production scale)

(\$ in THB)

	2016A	2016A
	A	B
Variable Cost		
Fixed Cost		
Total Cost		
Cost per plate		

If the owner of A invested THB 1,000,000, what is an ROI of his investment in 2016?

If the owner of B invested THB 1,000,000, what is an ROI of his investment in 2016?

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Statement of cash flow

Showing how much company generate during a specific time period

Statement of cash flows divides cash inflows and outflows (receipts and payments) into the 3 primary categories of cash flows

+/- Cash Flows from Operating Activities (CFO)
+/- Cash Flows from Investing Activities (CFI)
+/- Cash Flows from Financing Activities (CFF)
Change in Cash

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Statement of Cash Flows

Computer Central Services Statement of Cash Flows Year ended December 31, 2014 (\$ thousands)			
Most companies start with net income and make adjustments for various inflows and outflows throughout the year	Cash Flows from Operating Activities*		
	Net Income	\$ 60,000	
	Adjustments to Reconcile Net Income to Net Cash Provided by Operating Activities	-40,000	
	<i>Net Cash Provided by or Used in Operating Activities</i>		\$20,000
Cash from buying or selling property and securities	Cash Flows from Investing Activities		
	Purchase of Property and Equipment	-30,000	
	Purchase of Securities	-115,000	
	Redemption of Securities	125,000	
	<i>Net Cash Provided by or Used in Operating Activities</i>		-20,000
Cash from borrowing or repaying existing debts	Cash Flows from Financing Activities		
	Loan Proceeds	15,000	
	Payment of Long-Term Debt	-10,000	
	<i>Net Cash Provided by or Used in Operating Activities</i>		5,000
	Net (Decrease) Increase in Cash		<u>5,000</u>
	Cash and Cash Equivalents at Beginning of Year		\$18,000
	Cash and Cash Equivalents at End of Year		<u>\$23,000</u>

*Numbers preceded by minus sign indicate cash outflows.

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Financial Ratios

1. Profitability Ratio

$$\text{Profit} = \text{Revenue} - \text{Cost}$$

$$\text{Profit Margin (\%)} = \text{Profit} / \text{Revenue}$$

Gross Profit = Revenue – Cost of Goods Sold (COGS)

Gross Profit Margin = Gross Profit / Revenue

Operating Profit = EBIT = Gross Profit – Operating Expenses

Operating Profit Margin = Operating Profit / Revenue

Net Profit = Net Income = Operating Profit – Interest Expenses – Tax

Net Profit Margin = Net Profit / Revenue

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Profit margin vs. Return on Investment

Profit margin

- ✓ Profit = revenue – Cost
- ✓ Cost = variable cost + fixed cost
- ✓ Profit Margin = Net Income/ revenue

Return on Investment (ROI)

- ✓ Investment = capital invested
- ✓ ROI = Net Income/ Investment

Return on Equity (ROE)

- ✓ ROE = Net Income/ Owner's equity

Standard ROI calculations do not account for debt and can give a false impression of business health.

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1. Profitability Ratio

Return on sales

The ratio between net income after taxes and net sales
Also known as the profit margin

Return on equity

The ratio between net income after taxes and total owners' equity

Earnings per share

A measure of a firm's profitability for each share of outstanding stock, calculated by dividing net income after taxes by the average number of shares of common stock outstanding

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2. Liquidity Ratios

Working Capital

Current assets minus current liabilities

Current Ratio

A measure of a firm's short-term liquidity, calculated by dividing current assets by current liabilities

Quick Ratio

A measure of a firm's short-term liquidity, calculated by adding cash, marketable securities, and receivables, then dividing that sum by current liabilities
Also known as the *acid-test ratio*

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3. Activity Ratios

Inventory Turnover Ratio

A measure of the time a company takes to turn its inventory into sales, calculated by dividing cost of goods sold by the average value of inventory for a period

Accounts Receivable Turnover Ratio

A measure of the time a company takes to turn its accounts receivable into cash, calculated by dividing sales by the average value of accounts receivable for a period

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4. Leverage or Debt Ratios

Debt-to-Equity Ratio

A measure of the extent to which a business is financed by debt as opposed to invested capital, calculated by dividing the company's total liabilities by owners' equity

Debt-to-Assets Ratio

A measure of a firm's ability to carry long-term debt, calculated by dividing total liabilities by total assets

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