# 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

# 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

# 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

# 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

# Sarbanes-Oxley

**Sarbanes-Oxley**
The informal name of comprehensive legislation designed to improve integrity and accountability of financial information

# The Key Financial Statements

**Balance Sheet**: Assets = Liabilities + Equity

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

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**Income Statement**: Net Income = Revenue – Expenses

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

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**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

# The Accounting Equation and Principle

## Accounting Equation

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

**Assets – Liabilities = 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

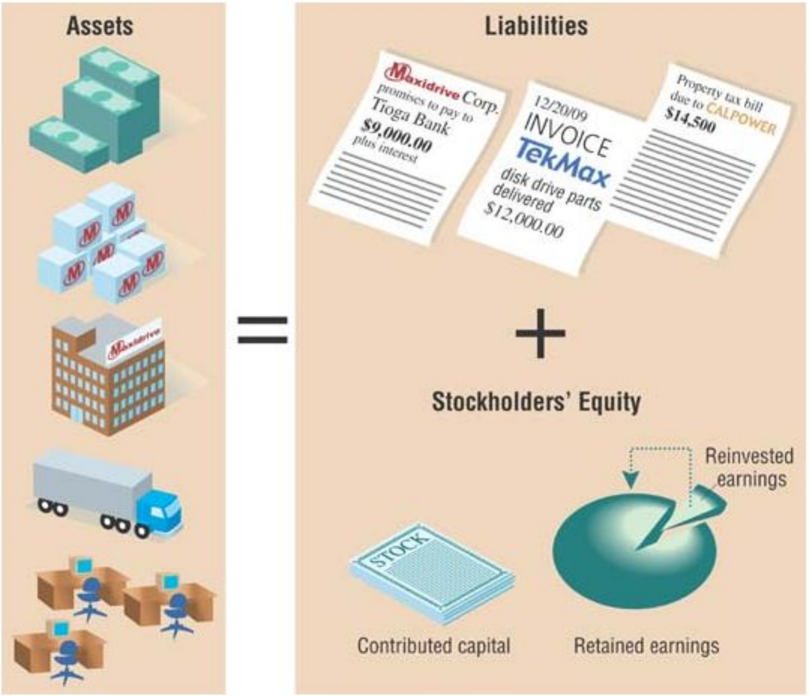
## Matching Principle

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

# 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



# 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)

# 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

# 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

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

| | December 31 2011 | December 31 2012 |
|---|---|---|
| **ASSETS** | | |
| Cash And Equivalents | $4,623 | $3,897 |
| Accounts Receivable | 903 | 1,089 |
| Inventory | 1,943 | 1,928 |
| Deferred Tax Assets, Curr. | 232 | 420 |
| Other Current Assets | 194 | 131 |
| **Total Current Assets** | **7,895** | **7,465** |
| | | |
| **Net Property, Plant & Equipment** | **4,278** | **4,204** |
| Goodwill | 11,316 | 11,346 |
| Other Intangibles | 2,630 | 2,631 |
| Other Long-Term Assets | 43 | 325 |
| **Total Fixed Assets** | **18,267** | **18,506** |
| | | |
| **Total Assets** | **26,162** | **25,971** |
| | | |
| **LIABILITIES** | | |
| Accounts Payable | 1,447 | 1,556 |
| 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** |

| | December 31 2011 | December 31 2012 |
|---|---|---|
| Long-Term Debt | - | 2,000 |
| Capital Leases | 27 | - |
| Pension & Other Post-Retire. Benefits | 117 | 123 |
| Def. Tax Liability, Non-Curr. | 1,594 | 288 |
| Other Non-Current Liabilities | 641 | 405 |
| **Total Long-Term Liabilities** | **2,379** | **2,816** |
| | | |
| **Total Liabilities** | **4,951** | **6,422** |
| | | |
| Common Stock | 16,713 | 16,713 |
| Retained Earnings | 5,073 | 3,298 |
| Treasury Stock | - | (2) |
| Comprehensive Inc. and Other | (125) | (460) |
| **Total Equity** | **21,661** | **19,549** |
| | | |
| **Total Liabilities And Equity** | **26,612** | **25,971** |

# 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)

# Elements of Income Statement

**Revenue:** topline, sales

**-**

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

**=**

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

**-**

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

**=**

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

# 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 |

(? 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** | | |
| *Gross Margin* | | |
| | | |
| SG&A* | ? 2,340 ,000 | ? 1,020 ,000 |
| **Operating Profit** | | |
| *Operating Profit Margin (%)* | | |
| | | |
| Tax | 6,963,000 | 9,001,500 |
| **Net Income** | | |
| *Net Profit Margin (%)* | | |

* 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?

# 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)

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Change in Cash

# Statement of Cash Flows

**Computer Central Services**

**Statement of Cash Flows**
**Year ended December 31, 2014**
**($ thousands)**

| | | |
|---|---|---|
| **Cash Flows from Operating Activities*** | | |
| Net Income | $ 60,000 | |
| Adjustments to Reconcile Net Income to Net Cash Provided by Operating Activities | −40,000 | |
| *Net Cash Provided by or Used in Operating Activities* | | $20,000 |
| **Cash Flows from Investing Activities** | | |
| Purchase of Property and Equipment | −30,000 | |
| Purchase of Securities | −115,000 | |
| Redemption of Securities | 125,000 | |
| *Net Cash Provided by or Used in Operating Activities* | | −20,000 |
| **Cash Flows from Financing Activities** | | |
| Loan Proceeds | 15,000 | |
| Payment of Long-Term Debt | −10,000 | |
| *Net Cash Provided by or Used in Operating Activites* | | 5,000 |
| **Net (Decrease) Increase in Cash** | | 5,000 |
| **Cash and Cash Equivalents at Beginning of Year** | | $18,000 |
| **Cash and Cash Equivalents at End of Year** | | $23,000 |

*Numbers preceded by minus sign indicate cash outflows.

Most companies start with net income and make adjustments for various inflows and outflows throughout the year

Cash from buying or selling property and securities

Cash from borrowing or repaying existing debts

The company had positive cash flow in two of the three cash flow categories

The company experienced a net increase in cash of $5 million over the course of the year

As a result of the $5 million cash inflow, the company ended the year with $23 million in cash

# Financial Ratios

## 1. Profitability Ratio

**Profit = Revenue - Cost**

**Profit Margin (%) = Profit / 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

# 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.

# 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*

# 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

# 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