

ACCOUNTING

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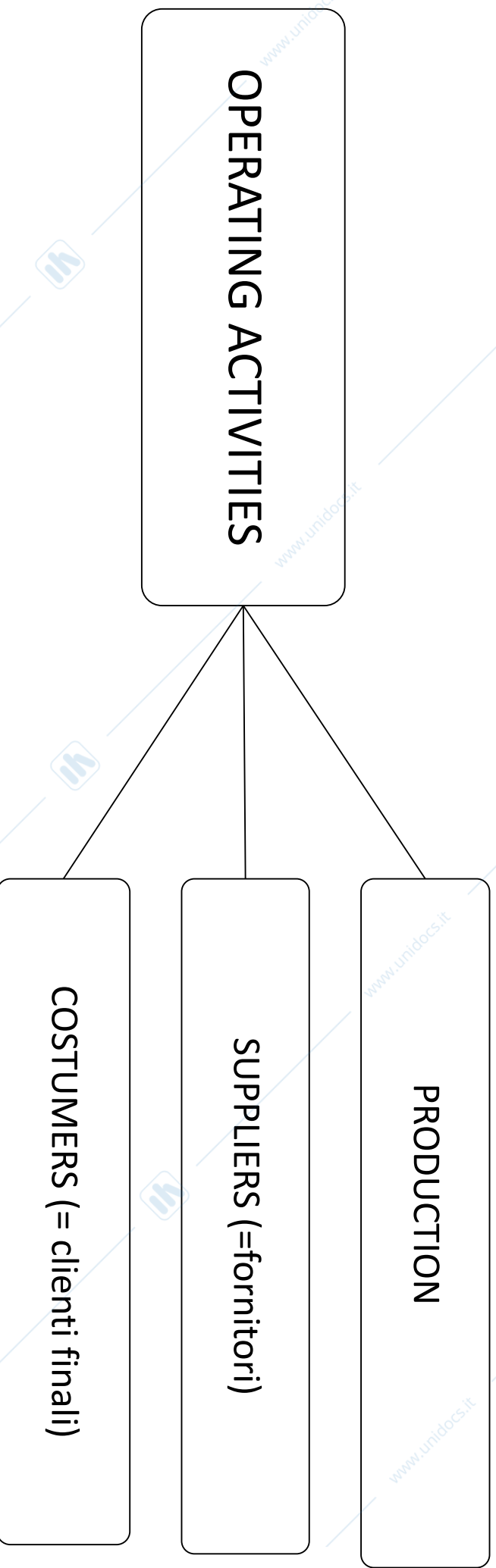


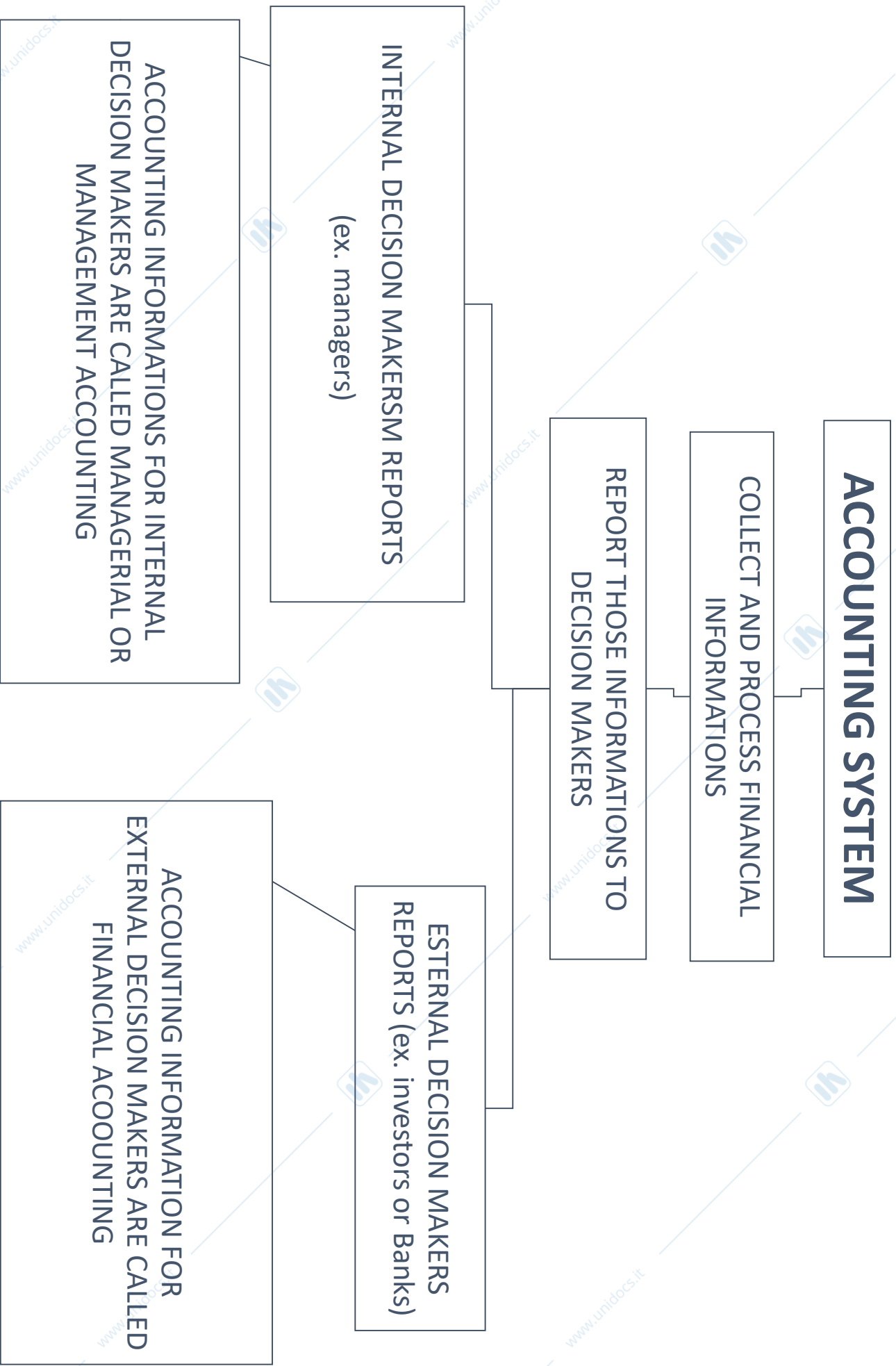
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CHAPTER 1 - FINANCIAL STATEMENTS AND BUSINESS DECISIONS

BUSINESS OPERATIONS





4 BASIC FINANCIAL STATEMENTS

BALANCE SHEETS (BILANCIO)

The purpose of balance sheet is to report the financial position of an accounting entity at a particular point in time.

It reports the amount of:

assets (risorse, beni, patrimonio)
liabilities (passività, perdite, debit)
stockholders' equity (patrimonio netto)

of an accounting entity at a point in time.

ASSETS (ECONOMIC RESOURCES) = LIABILITIES + STOCKHOLDERS EQUITY

Sources of financing for the economic resources. Liabilities from creditors, stockholders equity from stockholders

INCOME STATEMENT (CONTO ECONOMICO)

The income statement (statement of income, statement of earnings, or statement of operations) reports the accountant's primary measure of performance of a business, **revenues (ricavi) less expenses (spese)** during the accounting period. While the term profit is used widely for this measure of performance, accountants prefer to use the technical terms **net income (reddito netto) or net earnings (guadagni netti)**. Net income measures the success in selling goods for more than the cost to generate those sales. Income statement has three major captions: **revenues, expenses, and net income.**

REVENUES - EXPENSES = NET INCOME

STATEMENT OF RETAINED EARNINGS (ESTRATTO CONTO DEGLI UTILI NON DISTRIBUITI)

The statement reports the way that **net income** and the distribution of **dividends** affected the company's financial position during the accounting period. **Net income** earned during the year increases the balance of retained earnings, showing the relationship of the income statement to the balance sheet. The declaration of dividends to the stockholders decreases retained earnings.

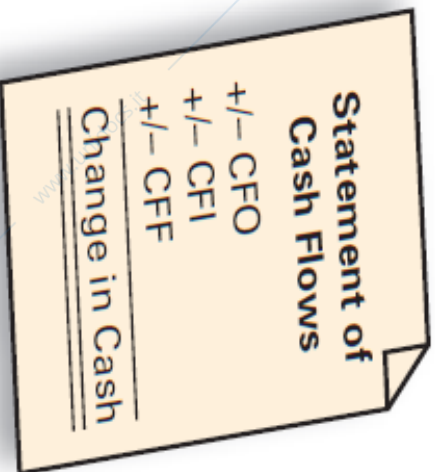
BEGINNING RETAINED EARNINGS + NET INCOME - DIVIDENDS = ENDING RETAINED EARNINGS

STATEMENT OF CASH FLOWS (RENDICONTO FINANZIARIO)

The STATEMENT OF CASH FLOWS (Cash Flow Statement) reports **inflows and outflows of cash** during the accounting period in the categories of **operating, investing, and financing**. The cash flow statement equation describes the causes of the change in cash reported on the balance sheet from the end of last period to the end of the current period:

+ / - CASH FLOWS FROM OPERATING ACTIVITIES (CFO)
+ / - CASH FLOWS FROM INVESTING ACTIVITIES (CFI)
+ / - CASH FLOWS FROM FINANCING ACTIVITIES (CFF)

CHANGE IN CASH



BALANCE SHEET

ASSETS

ASSETS are the economic resources owned by the company. The exact items listed as assets on a company's balance sheet depends on the nature of its operations. Each of these economic resources is expected to provide future benefits to the firm. (es. land, machines, buildings etc.).

A company first needed cash to purchase assets. When the company sells its products to others, it sells them on credit and receives promises to pay called **accounts receivable**, which are collected in cash later. Every asset on the balance sheet is initially measured at the total cost incurred to acquire it. For example, the balance sheet for Maxidrive reports Land, \$981; this is the amount paid (in thousands) for the land when it was acquired. Balance sheets do not generally show the amounts for which the assets could currently be sold. Assets provide a basis for judging whether the company has sufficient resources available to operate. Assets are also important because they could be sold for cash in the event that a company run out of business.

- Cash
- Accounts receivable
- Inventories
- Etc....

LIABILITIES

LIABILITIES are the company's debts or obligations. The accounts payable emerge from the purchase of goods or services from suppliers on credit without a formal written contract (or a note). The notes payable result from cash borrowings based on a formal written debt contract with lending institutions such as banks.

- Accounts payable
- Notes payable

STOCKHOLDERS EQUITY

STOCKHOLDERS' EQUITY indicates the amount of financing provided by owners of the business and earnings. The investment of cash and other assets in the business by the owners is called **contributed capital**. The amount of earnings (profits) reinvested in the business (and thus not distributed to stockholders in the form of dividends) is called **retained earnings**.

Total stockholders' equity is the sum of the contributed capital plus the retained earnings. Creditors consider stockholders' equity a protective "cushion".

- Contributed capital
- Retained earnings

INCOME STATEMENT

REVENUES

Companies **earn revenues from the sale of goods or services to customers**. **Revenues normally are reported for goods or services that have been sold to a customer whether or not they have yet been paid for**. Retail stores such as Walmart and McDonald's often receive cash at the time of sale. However, when Maxidrive sells its disk drives to Dell and Apple, it receives a promise of future payment called an **account receivable**, which later is collected in cash. In either case, **the business recognizes total sales (cash and credit) as revenue for the period**. Various terms are used in income statements to describe different sources of revenue (e.g., provision of services, sale of goods, rental of property).

Sales revenue is normally reported on the income statement when goods or services have been delivered to customers who have either paid or promised to pay for them in the future.

EXPENSES

Expenses represent the dollar amount of resources the entity used to earn revenues during the period. **Expenses reported in one accounting period may actually be paid for in another accounting period**. Some expenses require the payment of cash immediately while others require payment at a later date. Some may also require the use of another resource, such as an inventory item, which may have been paid for in a prior period. These expenses include income tax expense, which, as a corporation, Maxidrive must pay on pretax income.

Expenses are the dollar amount of resources used up to earn revenues during the period. Only those goods that have been delivered to customers have been used up. Those disk goods that are still on hand are part of the asset inventory.

NET INCOME

Net income or net earnings (often called "the bottom line") is the excess of total revenues over total expenses. If total expenses exceed total revenues, a net loss is reported. We noted earlier that revenues are not necessarily the same as collections from customers and expenses are not necessarily the same as payments to suppliers. As a result, net income normally does not equal the net cash generated by operations. This latter amount is reported on the cash flow statement discussed later in this chapter.

STATEMENT OF RETAINED EARNINGS

BEGINNING OF THE YEAR RETAINED EARNINGS

The first item on the Statement of Retained Earnings should be the balance of retained earnings you're carrying over from the prior year: the comes from the prior year's balance sheet. If the balance of retained earnings for a hypothetical firm were \$20,000, the first line for the Statement of Retained Earnings would look like this:

Retained Earnings, December 31, 2017 \$20,000

NET INCOME

The second item entered is Net Income or Loss. If the same hypothetical company had a net income of \$10,000, the retained earnings statement now looks like this:

Retained Earnings: December 31, 2017 \$20,000
Plus: Net Income 2018 +10,000
Total \$30,000

If the company has a net loss on the Income Statement, then the net loss is subtracted from the existing retained earnings.

DIVIDENDS

If our hypothetical company pays dividends, subtract the number of dividends it pays out of Net Income. If it does not, then subtract \$0. If the company's dividend policy is to pay 50 percent of its net income out to its investors, \$5,000 would be paid out as dividends and subtracted from the current total.

Retained Earnings, December 31, 2017 \$20,000
Plus: Net Income 2018 +10,000
Total \$30,000
Minus: Dividends (5,000)

Dividends are treated as a debit, or reduction, in the retained earnings account whether they've been paid or not. If, for instance, Widget Corporation's board of directors declares a dividend of \$5.00/share on 10,000 shares stock, \$50,000 is then deducted from the company's retained earnings even if the dividend has not yet been paid. Subtract the dividends, if paid, and then calculate a total for the Statement of Retained Earnings. This is the amount of retained earnings that is posted to the retained earnings account on the 2018 balance sheet.

Retained Earnings, December 31, 2017 \$20,000
Plus: Net Income 2018 \$10,000
Total: \$30,000
Minus: Dividends Paid (\$5,000)
Retained Earnings, December 31, 2018 \$25,000

This completes the Statement of Retained Earnings.

STATEMENT OF CASH FLOW

CASH FLOWS FROM OPERATING ACTIVITIES (CFO)

Cash flows from operating activities are cash flows that are directly related to earning income. For example, when customers pay the Company for the goods, it lists the amounts collected as cash collected from customers. When the Company pays salaries to its employees in research and development or pays bills received from its parts suppliers, it includes the amounts in cash paid to suppliers and employees.

CASH FLOWS FROM INVESTING ACTIVITIES (CFI)

Cash flows from investing activities include cash flows related to the acquisition or sale of the company's productive assets.

CASH FLOWS FROM FINANCING (CFF)

Cash flows from financing activities are directly related to the financing of the enterprise itself. They involve the receipt or payment of money to investors and creditors (except for suppliers).

MAXIDRIVE CORP.
Balance Sheet
At December 31, 2010
(in thousands of dollars)

Assets	
Cash	\$ 4,895
Accounts receivable	5,714
Inventories	8,517
Plant and equipment	7,154
Land	981
Total assets	<u>\$27,261</u>
Liabilities	
Accounts payable	\$ 7,156
Notes payable	9,000
Total liabilities	<u>16,156</u>
Stockholders' Equity	
Contributed capital	2,000
Retained earnings	9,105
Total stockholders' equity	<u>11,105</u>
Total liabilities and stockholders' equity	<u>\$27,261</u>

MAXIDRIVE CORP.
Income Statement
For the Year Ended December 31, 2010
(in thousands of dollars)

Revenues	
Sales revenue	\$37,436
Total revenues	<u>37,436</u>
Expenses	
Cost of goods sold expense	26,980
Selling, general, and administrative expense	3,624
Research and development expense	1,982
Interest expense	450
Total expenses	<u>33,036</u>
Pretax income	<u>4,400</u>
Income tax expense	1,100
Net income	<u>\$ 3,300</u>

MAXIDRIVE CORP.
Statement of Retained Earnings
For the Year Ended December 31, 2010
(in thousands of dollars)

Retained earnings, January 1, 2010	\$ 6,805
Net income for 2010	3,300
Dividends for 2010	(1,000)
Retained earnings, December 31, 2010	<u>\$ 9,105</u>

MAXIDRIVE CORP.
Statement of Cash Flows
For the Year Ended December 31, 2010
(in thousands of dollars)

Cash flows from operating activities	
Cash collected from customers	\$ 33,563
Cash paid to suppliers and employees	(30,854)
Cash paid for interest	(450)
Cash paid for taxes	(1,190)
Net cash flow from operating activities	<u>1,069</u>
Cash flows from investing activities	
Cash paid to purchase manufacturing equipment	(1,625)
Net cash flow from investing activities	<u>(1,625)</u>
Cash flows from financing activities	
Cash received from bank loan	1,400
Cash paid for dividends	(1,000)
Net cash flow from financing activities	<u>400</u>
Net decrease in cash during the year	<u>(156)</u>
Cash at beginning of year	5,051
Cash at end of year	<u>\$ 4,895</u>

Income Statement

Revenues	\$ 37,436
- Expenses	34,136
Net Income	<u>\$ 3,300</u>

Statement of Cash Flows

+/- Cash Flows from Operating Activities	\$ 1,069
+/- Cash Flows from Investing Activities	(1,625)
+/- Cash Flows from Financing Activities	400
Change in Cash	<u>(156)</u>
+ Cash at Beginning of Period	5,051
Cash at End of Period	<u>\$ 4,895</u>

Statement of Retained Earnings

Beginning Retained Earnings	\$ 6,805
+ Net Income	3,300
- Dividends	(1,000)
Ending Retained Earnings	<u>\$ 9,105</u>


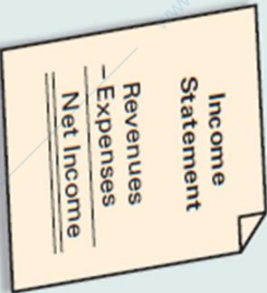

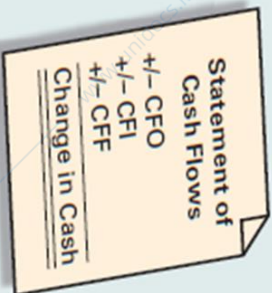
Balance Sheet

Cash	\$ 4,895
Other Assets	22,366
Total Assets	<u>\$ 27,261</u>
Liabilities	\$ 16,156
Contributed Capital	2,000
Retained Earnings	9,105
Total Liabilities & Stockholders' Equity	<u>\$ 27,261</u>

Relationships Among
Maxidrive's Statements

Balance Sheet	Assets = Liabilities + Stockholders' Equity
Statement of Retained Earnings	Retained Earnings, beginning of the period + Net Income - Dividends Retained Earnings, end of the period
Income Statement	Revenues - Expenses Net Income
Statement of Cash Flows	+/- Cash Flows from Operating Activities +/- Cash Flows from Investing Activities +/- Cash Flows from Financing Activities Net Change in Cash

Summary of the Four Basic Financial Statements

Financial Statement	Purpose	Structure	Examples of Content
Balance Sheet (Statement of Financial Position)	Reports the financial position (economic resources and sources of financing) of an accounting entity <i>at a point in time</i> .	 <p>BALANCE SHEET Assets = Liabilities + Stockholders' Equity</p>	Cash, accounts receivable, plant and equipment, notes payable, contributed capital
Income Statement (Statement of Income, Statement of Earnings, Statement of Operations)	Reports the accountant's primary measure of economic performance <i>during the accounting period</i> .	 <p>Income Statement Revenues - Expenses = Net Income</p>	Sales revenue, cost of goods sold, selling expense, interest expense
Statement of Retained Earnings	Reports the way that net income and the distribution of dividends have affected the financial position of the company <i>during the accounting period</i> .	 <p>Statement of Retained Earnings Beginning RE + Net Income - Dividends = Ending RE</p>	Net income is taken from the income statement; Dividends are distributions to stockholders
Statement of Cash Flows (Cash Flow Statement)	Reports inflows (receipts) and outflows (payments) of cash <i>during the accounting period</i> in the categories operating, investing, and financing.	 <p>Statement of Cash Flows +/- CFO +/- CFI +/- CFF Change in Cash</p>	Cash collected from customers, cash paid to suppliers, cash paid to purchase equipment, cash borrowed from banks

NOTES

“The notes are an integral part of these financial statements.” It warns users that failure to read the notes (or footnotes) to the financial statements will result in an incomplete picture of the company’s financial health. Notes provide supplemental information about the financial condition of a company without which the financial statements cannot be fully understood. There are three basic types of notes.

FIRST TYPE NOTE

The first type provides descriptions of the accounting rules applied in the company’s statements.

SECOND TYPE NOTE

The second presents additional detail about a line on the financial statements.

THIRD TYPE NOTE

The third type of note provides additional financial disclosures about items not listed on the statements themselves.

GAAP

A decision maker should never attempt to use accounting information without first understanding the measurement rules that were used to develop the information. These measurement rules are called generally accepted accounting principles, or GAAP.

Financial accounting standards and disclosure requirements are adopted by national regulatory agencies.

• UNITED STATES

IFRS

Since 2002, there has been substantial movement toward the adoption of International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB). In the United States, the Securities and Exchange Commission now allows foreign companies whose stock is traded in the United States to use IFRS and is considering requiring the use of IFRS for U.S. domestic companies by 2015.

- EUROPEAN UNION (UNITED KINGDOM, GERMANY, FRANCE, NETHERLANDS, BELGIUM, BULGARIA, POLAND, ETC.)
- AUSTRALIA AND NEW ZEALAND
- HONG KONG (S.A.R. OF CHINA), INDIA, MALAYSIA, AND SOUTH KOREA
- SRAEL AND TURKEY
- BRAZIL AND CHILE
- CANADA AND MEXICO

SUMMARY CHAPTER ONE

The balance sheet is a statement of financial position that reports dollar amounts for the assets, liabilities, and stockholders' equity at a specific point in time.

The income statement is a statement of operations that reports revenues, expenses, and net income for a stated period of time.

The statement of retained earnings explains changes to the retained earnings balance that occurred during the reporting period.

The statement of cash flows reports inflows and outflows of cash for a stated period of time.

The statements are used by investors and creditors to evaluate different aspects of the firm's financial position and performance.

Users will have confidence in the accuracy of financial statement numbers only if the people associated with their preparation and audit have reputations for ethical behavior and competence. **Management and auditors** can also be held legally liable for fraudulent financial statements and malpractice.

GAAP are the measurement rules used to develop the information in financial statements. Knowledge of GAAP is necessary for accurate interpretation of the numbers in financial statements.

Management has primary responsibility for the accuracy of a company's financial information.

Auditors are responsible for expressing an opinion on the fairness of the financial statement presentations based on their examination of the reports and records of the company.

SUMMARY CHAPTER 1

1. Recognize the information conveyed in each of the four basic financial statements and the way that it is used by different decision makers (investors, creditors, and managers). p. 4
 - The balance sheet is a statement of financial position that reports dollar amounts for the assets, liabilities, and stockholders' equity at a specific point in time.
 - The income statement is a statement of operations that reports revenues, expenses, and net income for a stated period of time.
 - The statement of retained earnings explains changes to the retained earnings balance that occurred during the reporting period.
 - The statement of cash flows reports inflows and outflows of cash for a stated period of time.
 - The statements are used by investors and creditors to evaluate different aspects of the firm's financial position and performance.
 2. Identify the role of generally accepted accounting principles (GAAP) in determining the content of financial statements. p. 18
 - GAAP are the measurement rules used to develop the information in financial statements. Knowledge of GAAP is necessary for accurate interpretation of the numbers in financial statements.
 3. Distinguish the roles of managers and auditors in the accounting communication process. p. 20
 - Management has primary responsibility for the accuracy of a company's financial information.
 - Auditors are responsible for expressing an opinion on the fairness of the financial statement presentations based on their examination of the reports and records of the company.
 4. Appreciate the importance of ethics, reputation, and legal liability in accounting. p. 21
 - Users will have confidence in the accuracy of financial statement numbers only if the people associated with their preparation and audit have reputations for ethical behavior and competence.
 - Management and auditors can also be held legally liable for fraudulent financial statements and malpractice.
- In this chapter, we studied the basic financial statements that communicate financial information to external users. Chapters 2, 3, and 4 provide a more detailed look at financial statements and examine how to translate data about business transactions into these statements. Learning how to translate back and forth between business transactions and financial statements is the key to using financial statements in planning and decision making. Chapter 2 begins our discussion of the way that the accounting function collects data about business transactions and processes the data to provide periodic financial statements, with emphasis on the balance sheet. To accomplish this purpose, Chapter 2 discusses key accounting concepts, the accounting model, transaction analysis, and analytical tools. We examine the typical business activities of an actual service-oriented company to demonstrate the concepts in Chapters 2, 3, and 4.

<p>Balance Sheet</p> <p>Assets = Liabilities + Stockholders' Equity</p>	<p>Income Statement</p> <p>Revenues – Expenses Net Income</p>
<p>Statement of Retained Earnings</p> <p>Retained Earnings, beginning of the period + Net Income – Dividends Retained Earnings, end of the period</p>	<p>Statement of Cash Flows</p> <p>+/- Cash Flows from Operating Activities +/- Cash Flows from Investing Activities +/- Cash Flows from Financing Activities Net Change in Cash</p>

CHAPTER 2 - INVESTING AND FINANCING DECISIONS AND THE BALANCE SHEET

OBJECTIVE OF FINANCIAL REPORTING

The primary objective of **external financial reporting** is to provide useful economic information about a business to help external parties, primarily **investors and creditors**, make sound financial decisions. The **users of accounting information** are identified as **decision makers**. These decision makers include average investors, creditors, and experts who provide financial advice. They are all expected to have a reasonable understanding of accounting concepts and procedures. Many other groups, such as **suppliers and customers**, also use external financial statements.

Most users are interested in information to help them project a business's future **cash inflows and outflows**. For example, creditors and potential creditors need to **assess an entity's ability to (1) pay interest on a loan over time and also (2) pay back the principal on the loan when it is due**. Investors and potential investors want to assess the entity's **ability to (1) pay dividends in the future and (2) be successful so that the stock price rises**, enabling investors to sell their stock for more than they paid.

To fulfill the primary objective of providing useful information, **information should be relevant** to the decision (that is, it provides feedback and predictive value on a timely basis) **and reliable** (that is, it is accurate, unbiased, and verifiable).

ACCOUNTING ASSUMPTIONS

Three of the four basic assumptions that underlie accounting measurement and reporting relate to the **balance sheet**.

SEPARATE-ENTITY ASSUMPTION

The separate-entity assumption states that each business's activities must be accounted for separately from the activities of its owners, all other persons, and other entities. This means that, when an owner purchases property for personal use, the property is not an asset of the business.

UNIT-OF-MEASURE ASSUMPTION

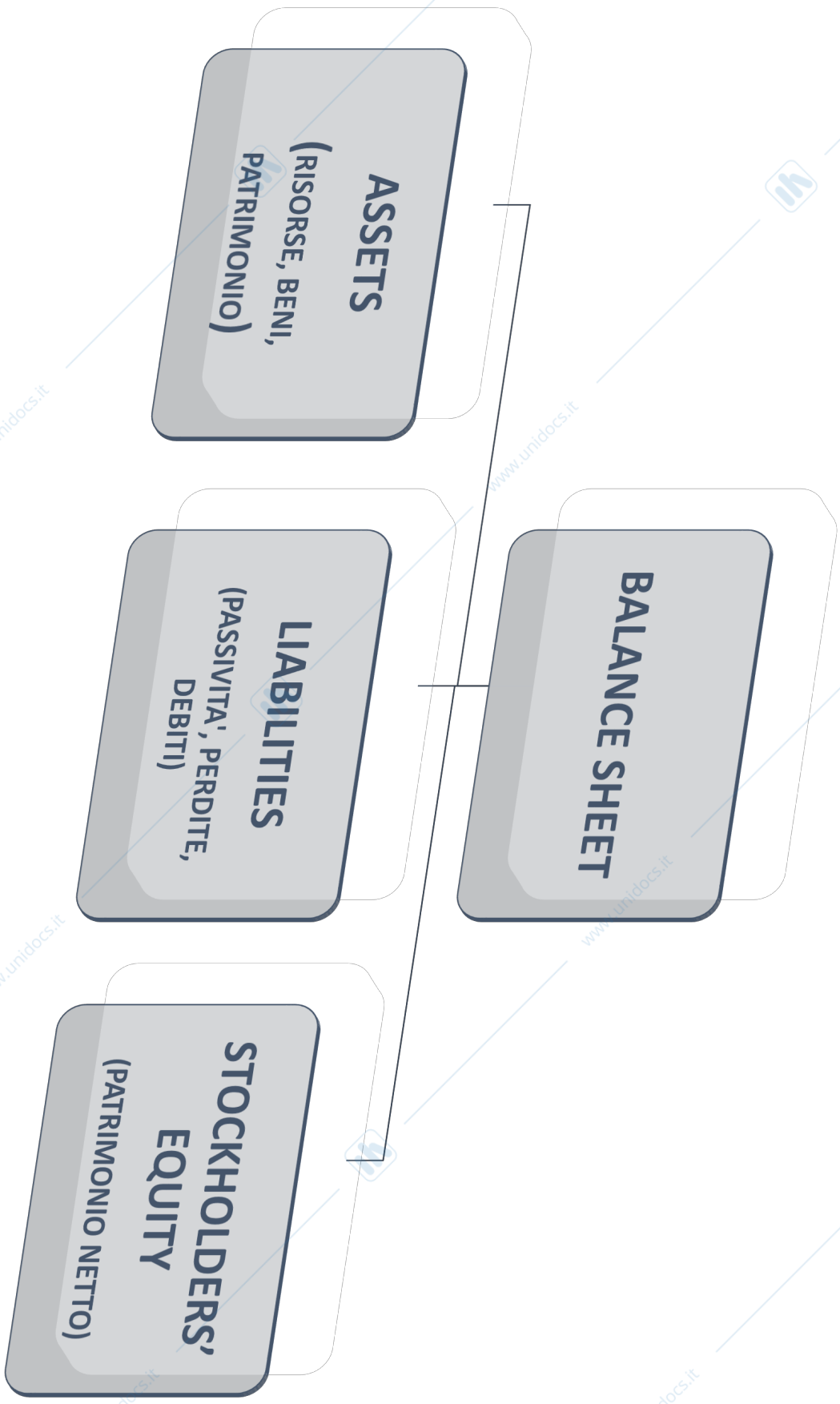
Under the unit-of-measure assumption, each business entity accounts for and reports its financial results primarily in terms of the national monetary unit (e.g., dollars in the United States, yen in Japan, and euros in Germany).

CONTINUITY ASSUMPTION

Under the continuity assumption (sometimes called the going-concern assumption), a business normally is assumed to continue operating long enough to meet its contractual commitments and plans. If a company was not expected to continue, for example, due to the likelihood of bankruptcy, then its assets and liabilities should be valued and reported on the balance sheet as if the company were to be liquidated (that is, discontinued, with all of its assets sold and all debts paid). In future chapters, unless otherwise indicated, we assume that businesses meet the continuity assumption.

TIME PERIOD ASSUMPTION

The time period assumption, provides guidance on measuring revenues and expenses that we will introduce in Chapter 3.



ELEMENT OF BALANCE SHEET

ASSETS

Assets are economic resources with probable future benefits owned or controlled by an entity as a result of past transactions. To be reported, assets must have a measurable, verifiable value, usually based on the purchase price. However, subsequent to acquisition, so as not to mislead users by reporting a value for the assets that is too high, managers use judgment (and past experience) to determine an acquired asset's most likely future benefit. Assets are measured initially under the historical cost principle (or cost principle). That is, on the acquisition date, cash paid plus the dollar value of all noncash considerations (any assets, privileges, or rights) given in the exchange become the historical cost of a new asset.

CURRENT ASSETS

Current assets are assets that will be used or turned into cash within one year. Inventory is always considered a current asset regardless of the time needed to produce and sell it.

LONG TERM OR NON CURRENT ASSETS

All other assets are considered long term (or noncurrent). That is, they are to be used or turned into cash beyond the coming year.

LIABILITIES

Liabilities are probable debts or obligations (claims to a company's resources) that result from a company's past transactions and will be paid with assets or services. Entities that a company owes money to are called creditors.

CURRENT LIABILITIES

Current liabilities are obligations that will be settled by providing cash, goods, or services within the coming year.

Just as assets are reported in order of liquidity, liabilities are usually listed on the balance sheet in order of maturity (how soon an obligation is to be paid). Liabilities that Papa John's will need to pay or settle within the coming year (with cash, services, or other current assets) are classified as current liabilities. Distinguishing current assets and current liabilities assists external users of the financial statements in assessing the amounts and timing of future cash flows.

STOCKHOLDERS' EQUITY

STOCKHOLDERS' EQUITY (also called owners' equity or shareholders' equity) **is the financing provided by the owners and business operations.** Owner-provided cash (and sometimes other assets) is referred to as contributed capital. Owners invest in the business and receive shares of stock as evidence of ownership. Owners who invest (or buy stock) in a company hope to benefit from their investment in two ways: **receipts of dividends**, which are a distribution of a company's earnings (a return on the shareholders' investment), **and gains from selling the stock for more than they paid** (known as capital gains). **Earnings that are not distributed to the owners but instead are reinvested in the business by management are called retained earnings.**

CONTRIBUTED CAPITAL

Contributed capital results from owners providing cash (and sometimes other assets) to the business.

RETAINED EARNINGS

Retained earnings refers to the cumulative earnings of a company that are not distributed to the owners and are reinvested in the business.

EXCEPTIONS TO THE MEASUREMENT AND REPORTING PRINCIPLES

MATERIALITY

Materiality exception suggests that small amounts that are not likely to influence a user's decision can be accounted for in the most cost-beneficial manner.^A

For example, pencil sharpeners that a company purchases represent equipment with a life that usually is greater than one year—a noncurrent asset. However, the cost of keeping track of, measuring, and reporting these inexpensive items as a noncurrent asset likely exceeds any value to users' decisions. Instead, the pencil sharpeners can be recorded as an expense when purchased. For expediency, many companies have a threshold limit that is applied to low-cost equipment acquisitions (e.g., anything under \$500 is expensed, not recorded as an asset). Throughout the text, unless told otherwise, assume all amounts are material to users' decisions.

CONSERVATISM

Conservatism exception suggests that care should be taken not to overstate assets and revenues or understate liabilities and expenses.

For information to be useful, it must not mislead users. The conservatism exception suggests that, when options in measurement exist and no option is better than any other, accountants should apply the methods that do not overstate assets and revenues or understate liabilities and expenses—that is, they should choose conservative methods.

NATURE OF BUSINESS TRANSACTIONS

TRANSACTION

Accounting focuses on certain events that have an economic impact on the entity. Those events that are recorded as part of the accounting process are called transactions. The first step in translating the results of business events to financial statement numbers is determining which events to include.

A transaction is (1) an exchange of assets or services for assets, services, or promises to pay between a business and one or more external parties to a business or (2) a measurable internal event such as the use of assets in operations.

As the definitions of assets and liabilities indicate, only economic resources and debts resulting from past transactions are recorded on the balance sheet. Transactions include two types of events:

EXTERNAL EVENTS

These are exchanges of assets, goods, or services by one party for assets, services, or promises to pay (liabilities) by one or more other parties. Examples include the purchase of a machine from a supplier, sale of merchandise to customers, borrowing cash from a bank, and investment of cash in the business by the owners.

INTERNAL EVENTS

These include certain events that are not exchanges between the business and other parties but nevertheless have a direct and measurable effect on the entity. Examples include using up insurance paid in advance and using buildings and equipment over several years.

Some important events that have a future economic impact on a company, however, are not reflected in the financial statements. In most cases, signing a contract is not considered to be a transaction because it involves only the exchange of promises, not of assets such as cash, goods, services, or property.

ACCOUNTS

To accumulate the dollar effect of transactions on each financial statement item, organizations use a standardized format called an account. The resulting balances are kept separate for financial statement purposes. To facilitate the recording of transactions, each company establishes a chart of accounts, a list of all account titles and their unique numbers. The accounts are usually organized by financial statement element, with asset accounts listed first, followed by liability, stockholders' equity, revenue, and expense accounts in that order. Every company creates its own chart of accounts to fit the nature of its business activities. The accounts you see in the financial statements of most large corporations are actually summations (or aggregations) of a number of specific accounts in their recordkeeping system.

Managers' business decisions often result in transactions that affect the financial statements. For example, decisions to expand the number of stores, advertise a new product, change an employee benefit package, and invest excess cash would all affect the financial statements. Sometimes these decisions have unintended consequences as well. The decision to purchase additional inventory for cash in anticipation of a major sales initiative, for example, will increase inventory and decrease cash. But if there is no demand for the additional inventory, the lower cash balance will also reduce the company's ability to pay its other obligations. Because business decisions often involve an element of risk, managers should understand exactly how transactions impact the financial statements. The process for determining the effects of transactions is called transaction analysis.<

Typical Account Titles

Assets	Liabilities	Stockholders' Equity	Revenues	Expenses
Cash Short-Term Investments Accounts Receivable Notes Receivable Inventory (to be sold) Supplies Prepaid Expenses Long-Term Investments Equipment Buildings Land Intangibles	Accounts Payable Accrued Expenses Payable Notes Payable Taxes Payable Unearned Revenue Bonds Payable	Contributed Capital Retained Earnings	Sales Revenue Fee Revenue Interest Revenue Rent Revenue Service Revenue	Cost of Goods Sold Wages Expense Rent Expense Interest Expense Depreciation Expense Advertising Expense Insurance Expense Repair Expense Income Tax Expense

Accounts with "payable" in the title are always liabilities and represent amounts owed by the company to be paid to others in the future.

Title expense accounts by what was incurred or used followed by the word "expense," except for inventory sold, which is titled Cost of Goods Sold.

Accounts with "receivable" in the title are always assets; they represent amounts owed by (receivable from) customers and others to the business.

Prepaid Expenses is always an asset; it represents amounts paid by the company to others for future benefits, such as rental of property, or advertising.

Accounts with "unearned" in the title are always liabilities representing amounts paid in the past to the company by others who expect future goods or services from the company.

Title revenue accounts by their source followed by the word "revenue."

PRINCIPLES OF TRANSACTION ANALYSIS

Transaction analysis is the process of studying a transaction to determine its economic effect on the entity in terms of the accounting equation (also known as the fundamental accounting model).

Every transaction affects at least two accounts; correctly identifying those accounts and the direction of the effect (whether an increase or a decrease) is critical.

The idea that every transaction has at least two effects on the basic accounting equation is known as the **DUAL EFFECTS CONCEPT**. Most transactions with external parties involve an exchange by which the business entity both receives something and gives up something in return.

The accounting equation must remain in balance after each transaction. That is, total assets (resources) must equal total liabilities and stockholders' equity (claims to resources). If all correct accounts have been identified and the appropriate direction of the effect on each account has been determined, the equation should remain in balance. A systematic transaction analysis includes the following steps, in this order:

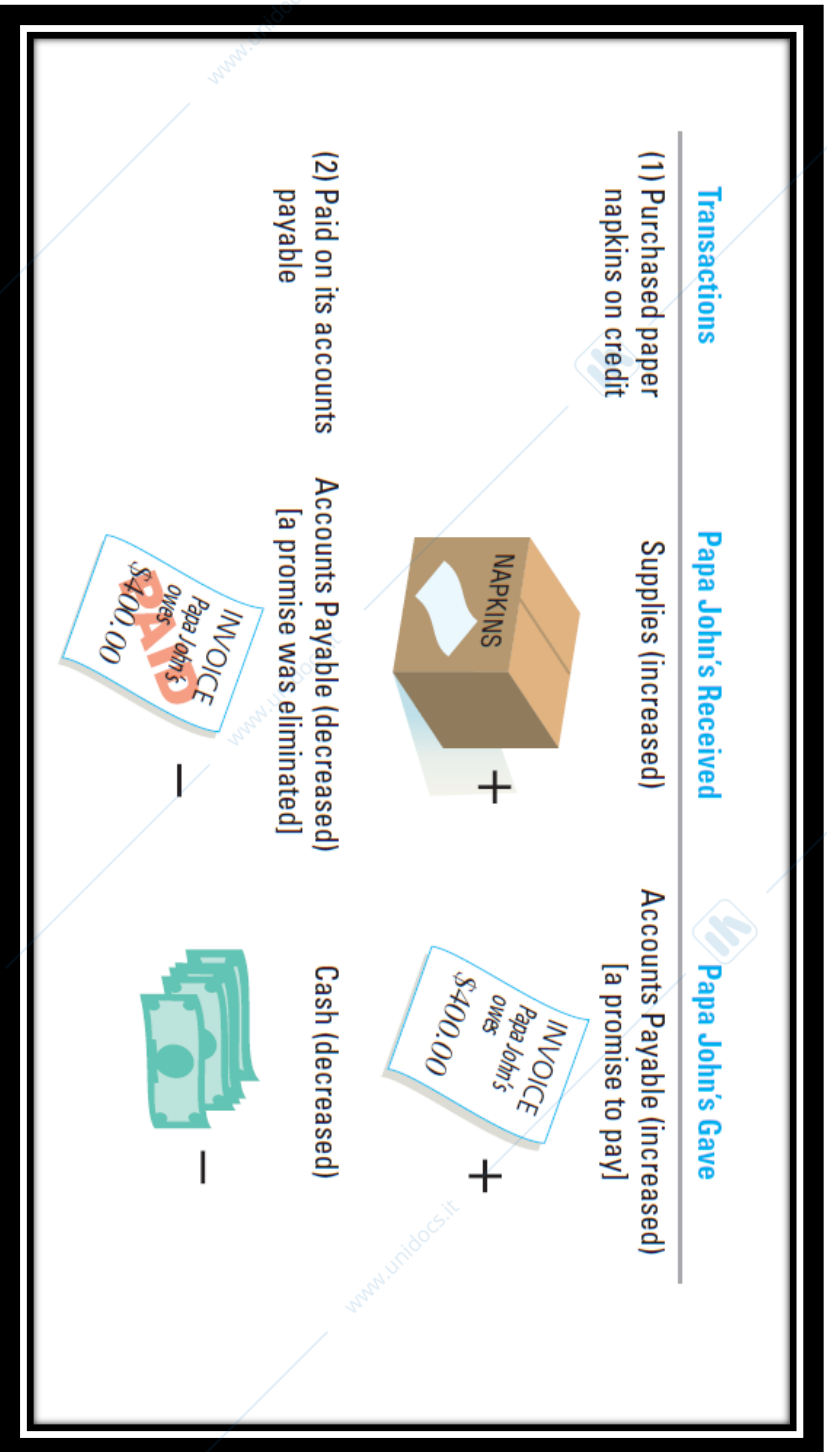
Step 1: Identify and classify accounts and effects

- Identify the accounts (by title) affected, making sure that at least two accounts change. Ask yourself: What was received and what was given?
- Classify them by type of account. Was each account an asset (A), a liability (L), or a stockholders' equity (SE)?
- Determine the direction of the effect. Did the account increase (+) or decrease (-)?

Step 2: Verify accounting equation is in balance

- Verify that the accounting equation ($A = L + SE$) remains in balance.

Success in performing transaction analysis depends on a clear understanding of these principles.



As noted earlier, not all-important business activities result in a transaction that affects the financial statements. Most importantly, signing a contract involving the exchange of two promises to perform does not result in an accounting transaction that is recorded. For example, if Papa John's sent an order for more napkins to its paper supplier and the supplier accepted the order but did not fill it immediately, no transaction took place. As soon as the goods are shipped to Papa John's, however, the supplier has given up its inventory in exchange for a promise from Papa John's to pay for the items in the near future, and Papa John's has exchanged its promise to pay for the supplies it receives. Because a promise has been exchanged for goods, a transaction has taken place. Both Papa John's and the supplier's statements will be affected.

EXEMPLE OF TANSACTIONS

(a) Papa John's issues \$2,000 of additional common stock shares, receiving cash from investors.

Step 1: Identify and classify accounts and effects.

Received: Cash (+A) \$2,000

Given: Additional stock shares,
Contributed Capital (+SE) \$2,000

Step 2: Is the accounting equation in balance?

Yes. The left side and the right side increased by \$2,000.

Assets		=	Liabilities		+	Stockholders' Equity	
Cash						Contributed Capital	
(a)	+2,000	=				+2,000	

(b) Papa John's borrows \$6,000 from its local bank, signing a note to be paid in three years.

Step 1: Identify and classify accounts and effects.

Received: Cash (+A) \$6,000

Given: Written promise to the bank,
Notes Payable (+L) \$6,000

Step 2: Is the accounting equation in balance?

Yes. The left side and the right side increased by \$6,000.

Assets		=	Liabilities		+	Stockholders' Equity	
Cash			Notes Payable			Contributed Capital	
(a)	+2,000	=				+2,000	
(b)	+6,000	=	+6,000				

Events (a) and (b) are financing transactions. Companies that need cash for investing purposes (to buy or build additional facilities) often seek funds by selling stock to investors as in event (a) or by borrowing from creditors as in event (b).

(c) Papa John's purchases new ovens, counters, refrigerators, and other equipment costing \$10,000, paying \$2,000 in cash and signing a two-year note payable to the equipment manufacturer for the rest.

Step 1: Identify and classify accounts and effects.

Received: Property and Equipment (+A) \$10,000

Given: (1) Cash (-A) \$2,000
(2) Notes Payable (+L) \$8,000

Step 2: Is the accounting equation in balance?

Yes. The left side and the right side increased by \$8,000.

Assets		=	Liabilities	+	Stockholders' Equity
Cash	Property and Equipment	=	Notes Payable		Contributed Capital
(a) +2,000		=			+2,000
(b) +6,000		=	+6,000		
(c) -2,000	+10,000	=	+8,000		

Notice that more than two accounts were affected by transaction (c).

(d) Papa John's lends \$3,000 cash to new franchisees who sign notes agreeing to repay the loans in five years.

Step 1: Identify and classify accounts and effects.

Received: Notes Receivable (+A) \$3,000

Given: Cash (-A) \$3,000

Step 2: Is the accounting equation in balance?

Yes. The equation stays in balance because assets increase and decrease by the same amount, \$3,000.

The effects are included in the chart that follows transaction (f).

(e) Papa John's purchases the stock of other companies as a long-term investment, paying \$1,000 in cash.

Step 1: Identify and classify accounts and effects.

Received: Investments (+A) \$1,000

Given: Cash (-A) \$1,000

Step 2: Is the accounting equation in balance?

Yes. The equation stays in balance because assets increase and decrease by the same amount, \$1,000.

The effects are included in the chart that follows transaction (f).

(f) Papa John's board of directors declares that the Company will pay \$3,000 in cash dividends to shareholders next month.⁶ Retained Earnings represent the profits available to shareholders. When a company's board of directors declares a cash dividend, Retained Earnings is reduced. Thus, the company receives a reduction in the profits it has available to distribute to shareholders. On the other hand, until the dividends are paid, the company gives shareholders a promise to pay the dividends (called Dividends Payable).

Step 1: Identify and classify accounts and effects.

Received: Retained Earnings (–SE) \$3,000

Given: Dividends Payable (+L) \$3,000

Step 2: Is the accounting equation in balance?

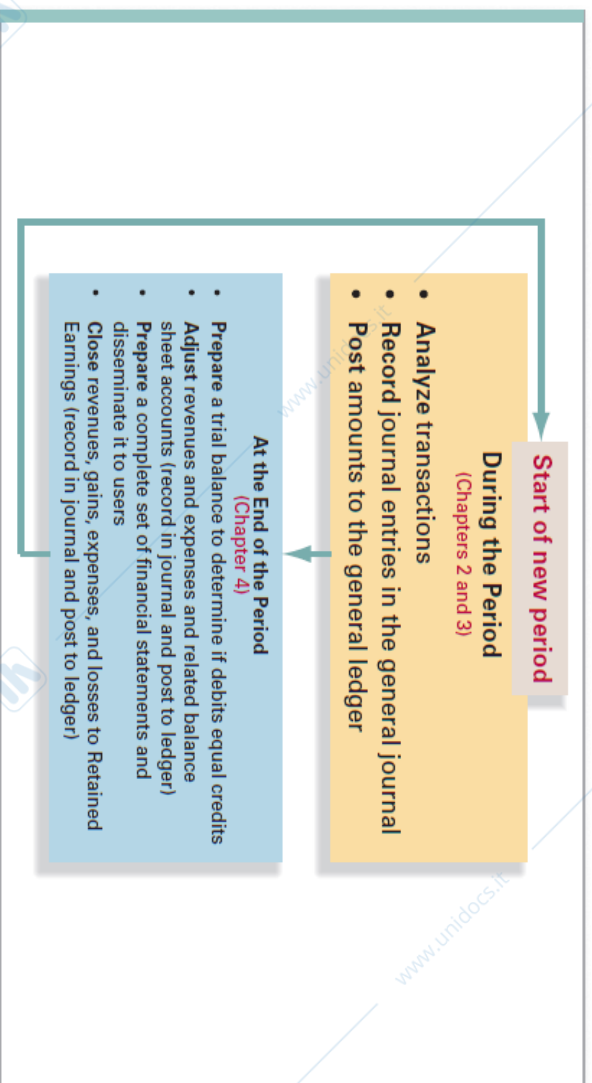
Yes. The equation stays in balance because liabilities increase and stockholders' equity decreases by the same amount, \$3,000.

The effects are included in the chart that follows.

	Assets				=	Liabilities		+	Stockholders' Equity	
	Cash	Notes Receivable	Property and Equipment	Investments		Dividends Payable	Notes Payable		Contributed Capital	Retained Earnings
(a)	+2,000				=				+2,000	
(b)	+6,000				=		+6,000			
(c)	–2,000		+10,000		=		+8,000			
(d)	–3,000	+3,000			=	No Change				
(e)	–1,000			+1,000	=	No Change				
(f)				No Change	=	+3,000				–3,000
Totals	+2,000	+3,000	+10,000	+1,000	=	+3,000	+14,000	+2,000	–3,000	
	+16,000				=	+16,000				

HOW DO COMPANIES KEEP TRACK OF ACCOUNT BALANCES?

To handle the multitude of daily transactions that a business generates, companies establish accounting systems, usually computerized, that follow a cycle:



The Accounting Cycle

During the accounting period, transactions that result in exchanges between the company and other external parties are analyzed and recorded in the **general journal** in chronological order, and the related accounts are updated in the **general ledger**. These formal records are based on two very important tools used by accountants: **journal entries** and **T-accounts**. From the standpoint of accounting systems design, these analytical tools are a more efficient way to reflect the effects of transactions, determine account balances, and prepare financial statements.

Transaction Analysis Model

Assets (many accounts)	+	Liabilities (many accounts)	+	Stockholders' Equity (two accounts)		
	debit		credit	debit	credit	Contributed Capital Retained Earnings
				Investments by owners	Dividends declared	Net income of business

Assets	=	Liabilities	=	Stockholders' Equity
↑ with Debits		↑ with Credits		↑ with Credits
Accounts have debit balances		Accounts have credit balances		Accounts have credit balances

DEBIT (dr) is on the left side of an account.
CREDIT (cr) is on the right side of an account.

To remember which accounts debits, increase and which accounts credits increase, recall that a debit (left) increases asset accounts because assets are on the left side of the accounting equation (A = L + SE). Similarly, a credit (right) increases liability and stockholders' equity accounts because they are on the right side of the accounting equation.

A **JOURNAL ENTRY** is an accounting method for expressing the effects of a transaction on accounts in a debits-equal-credits format.

Account Titles:		Debit		Credit	
Property and Equipment (+A).....		10,000			
Cash (-A).....			2,000		
Notes Payable (+L).....					8,000

Reference: Letter, number, or date

Account Titles: Debited accounts on top. Credited accounts on bottom, usually indented.

Amounts: Debited amounts on left. Credited amounts on right.

- It is useful to include a date or some form of reference for each transaction. The debited accounts are written first (on top) with the amounts recorded in the left column. The credited accounts are written below the debits and are usually indented in manual records; the credited amounts are written in the right column. The order of the debited accounts or credited accounts does not matter, as long as the debits are on top and the credits are on the bottom and indented to the right.
 - Total debits (\$10,000) equal total credits (\$2,000 + \$8,000).
 - Three accounts are affected by this transaction. Any journal entry that affects more than two accounts is called a compound entry. Although this is the only transaction in the Papa John's illustration that affects more than two accounts, many transactions in subsequent chapters require a compound journal entry.

SUMMARY CHAPTER 2

CURRENT RATIO

Current ratio measures the ability of the company to pay its short-term obligations with current assets. Although a ratio between 1.0 and 2.0 indicates sufficient current assets to meet obligations when they come due, many companies with sophisticated cash management systems have ratios below 1.0.:

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

Balance Sheet

Current Assets

- Cash
- Accounts receivable
- Notes receivable
- Inventory
- Prepaid expenses

Noncurrent Assets

- Long-term investments
- Property and equipment
- Intangibles

Current Liabilities

- Accounts payable
- Notes payable
- Accrued expenses payable
- Unearned revenue

Noncurrent Liabilities

- Long-term debt
- Stockholders' Equity
- Contributed capital
- Retained earnings

Statement of Cash Flows

Operating Activities

To be presented in Chapter 3

Investing Activities

- + Sales of noncurrent assets for cash
- Purchases of noncurrent assets for cash
- Loans to others
- + Receipt of loan principal payments from others

Financing Activities

- + Borrowing from banks
- Repayment of loan principal to banks
- + Issuance of stock
- Repurchasing stock
- Dividends paid

SUMMARY CHAPTER 2

1. Define the objective of financial reporting, the elements of the balance sheet, and the related key accounting assumptions and principles. p. 45

- The primary objective of external financial reporting is to provide useful economic information about a business to help external parties, primarily investors and creditors, make sound financial decisions.
- Qualitative characteristics of useful financial information are relevancy (possessing predictive and feedback value and being timely) and reliability (neutral, representative of reality, and verifiable). Information should also be comparable to other companies and be consistent over time.
- Elements of the balance sheet:
 - a. Assets—probable future economic benefits owned by the entity as a result of past transactions.
 - b. Liabilities—probable debts or obligations acquired by the entity as a result of past transactions, to be paid with assets or services.
 - c. Stockholders' equity—the financing provided by the owners and by business operations.
- Key accounting assumptions, principles, and constraints:
 - a. Separate-entity assumption—transactions of the business are accounted for separately from transactions of the owner.
 - b. Unit-of-measure assumption—financial information is reported in the national monetary unit.
 - c. Continuity (going-concern) assumption—a business is expected to continue to operate into the foreseeable future.
 - d. Historical cost principle—financial statement elements should be recorded at the cash equivalent cost on the date of the transaction.
 - e. Constraints—the benefits of providing information should outweigh the costs, immaterial amounts (those that do not affect a decision) can be accounted for in the least costly, most expedient manner, information should be conservative (assets and revenues are not overstated and liabilities and expenses are not understated), and industry practices are acceptable.

2. Identify what constitutes a business transaction and recognize common balance sheet account titles used in business. p. 50

A transaction includes:

- An exchange of cash, goods, or services for cash, goods, services or promises between a business and one or more external parties to a business.
 - Or
 - A measurable internal event, such as adjustments for the use of assets in operations.
- An account is a standardized format that organizations use to accumulate the dollar effects of transactions related to each financial statement item. Typical balance sheet account titles include the following:

- Assets: Cash, Accounts Receivable, Inventory, Prepaid Expenses, and Buildings and Equipment.
- Liabilities: Accounts Payable, Notes Payable, Accrued Expenses Payable, Unearned Revenues, and Taxes Payable.
- Stockholders' Equity: Contributed Capital and Retained Earnings.

3. Apply transaction analysis to simple business transactions in terms of the accounting model: Assets = Liabilities + Stockholders' Equity. p. 52

To determine the economic effect of a transaction on an entity in terms of the accounting equation, each transaction must be analyzed to determine the accounts (at least two) that are affected. In an exchange, the company receives something and gives up something. If the accounts, direction of the effects, and amounts are correctly analyzed, the accounting equation will stay in balance. The transaction analysis model is:

ASSETS <small>(many accounts)</small>		=	LIABILITIES <small>(many accounts)</small>		+	STOCKHOLDERS' EQUITY <small>(two accounts)</small>			
+	-		-	+		Contributed Capital		Retained Earnings	
debit	credit		debit	credit		-	+	-	+
						Investments by owners	credit	Dividends declared	debit
							+	Net income of business	credit

4. Determine the impact of business transactions on the balance sheet using two basic tools, journal entries and T-accounts. p. 57

- Journal entries express the effects of a transaction on accounts in a debits-equal-credits format. The accounts and amounts to be debited are listed first. Then the accounts and amounts to be credited are listed below the debits and indented, resulting in debit amounts on the left and credit amounts on the right.

(date or reference)	Property and Equipment (+A)	Debit	Credit
Cash (-A)	10,000	2,000
Notes Payable (+L)		8,000

- T-accounts summarize the transaction effects for each account. These tools can be used to determine balances and draw inferences about a company's activities.

Assets		Liabilities and Stockholders' Equity	
+ (dr)	(cr) -	-(dr)	(cr) +
Beginning balance			Beginning balance
Increases	Decreases	Decreases	Increases
Ending balance			Ending balance

5. Prepare a simple classified balance sheet and analyze the company using the current ratio. p. 66

Classified balance sheets are structured as follows:

- Assets are categorized as current assets (those to be used or turned into cash within the year, with inventory always considered a current asset) and noncurrent assets, such as long-term investments, property and equipment, and intangible assets.
- Liabilities are categorized as current liabilities (those that will be paid with current assets) and long-term liabilities.
- Stockholders' equity accounts are listed as Contributed Capital first, followed by Retained Earnings.

6. Identify investing and financing transactions and demonstrate how they are reported on the statement of cash flows. p. 70

The current ratio (Current Assets ÷ Current Liabilities) measures a company's liquidity, that is, the ability of the company to pay its short-term obligations with current assets. A statement of cash flows reports the sources and uses of cash for the period by the type of activity that generated the cash flow: operating, investing, and financing. Investing activities include purchasing and selling long-term assets and making loans and receiving principal repayments from others. Financing activities are borrowing and repaying to banks the principal on loans, issuing and repurchasing stock, and paying dividends. In this chapter, we discussed the fundamental accounting model and transaction analysis. Journal entries and T-accounts were used to record the results of transaction analysis for investing and financing decisions that affect balance sheet accounts. In Chapter 3, we continue our detailed look at the financial statements, in particular the income statement. The purpose of Chapter 3 is to build on your knowledge by discussing the measurement of revenues and expenses and illustrating the transaction analysis of operating decisions.

Current ratio measures the ability of the company to pay its short-term obligations with current assets. Although a ratio between 1.0 and 2.0 indicates sufficient current assets to meet obligations when they come due, many companies with sophisticated cash management systems have ratios below 1.0. (p. 68):

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

Balance Sheet		Income Statement	
To be presented in Chapter 3		To be presented in Chapter 3	
Current assets	Current Liabilities	Operating Activities	Notes
Cash	Accounts payable	Net sales	Net sales
Accounts receivable	Notes payable	Cost of sales	Cost of sales
Notes receivable	Accrued expenses payable	Interest revenue	Interest revenue
Prepaid expenses	Unearned revenue	Interest expense	Interest expense
Inventory	Long-term debt	Dividend revenue	Dividend revenue
Noncurrent assets	Stockholders' Equity	Dividend expense	Dividend expense
Long-term investments	Contributed capital	Retained earnings	Retained earnings
Property and equipment	Retained earnings		
Intangible assets			

Statement of Cash Flows	
To be presented in Chapter 3	
Operating Activities	Notes
Net sales	Net sales
Cost of sales	Cost of sales
Interest revenue	Interest revenue
Interest expense	Interest expense
Dividend revenue	Dividend revenue
Dividend expense	Dividend expense
Investing Activities	
Payments for long-term investments	
Proceeds from sale of long-term investments	
Proceeds from sale of property and equipment	
Proceeds from sale of intangible assets	
Financing Activities	
Proceeds from issuance of common stock	
Proceeds from issuance of preferred stock	
Proceeds from long-term debt	
Payments for long-term debt	
Payments for dividends	

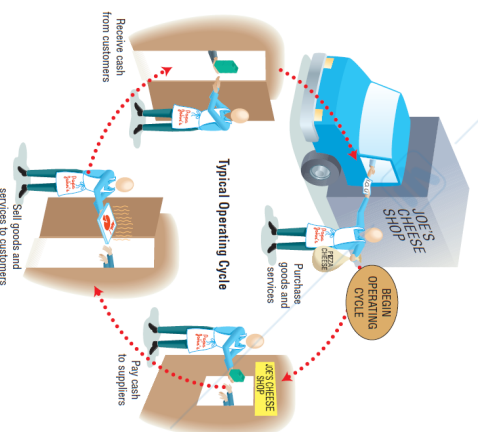
CHAPTER 3 – OPERATING DECISIONS AND THE INCOME STATEMENT

HOW DO BUSINESS ACTIVITIES AFFECT THE INCOME STATEMENT

The OPERATING (CASH-TO-CASH) CYCLE
is the time it takes for a company to pay cash to suppliers, sell goods and services to customers, and collect cash from customers.

The long-term objective for any business is to turn cash into more cash. If a company is to stay in business, this excess cash must be generated from operations (that is, from the activities for which the business was established), not from borrowing money or selling long-lived assets.

Companies (1) acquire inventory and the services of employees and (2) sell inventory or services to customers. The operating (or cash-to-cash) cycle begins when a company receives goods to sell (or, in the case of a service company, has employees work), pays for them, and sells to customers; it ends when customers pay cash to the company. The length of time for completion of the operating cycle depends on the nature of the business.



Shortening the operating cycle by creating incentives that encourage customers to buy sooner and/or pay faster improves a company's cash flows. Managers know that **reducing the time needed to turn cash into more cash** (that is, shortening the operating cycle) **means higher profit and faster growth**. With the excess cash, managers may purchase additional inventory or other assets for growth, repay debt, or distribute it to owners as dividends. Until a company ceases its activities, the operating cycle is repeated continuously. However, decision makers require information periodically about the company's financial condition and performance. To measure income for a specific period of time, accountants follow the time period assumption, which assumes that **the long life of a company can be reported in shorter time periods, such as months, quarters, and years**. Two types of issues arise in reporting periodic income to users:

- Recognition issues: When should the effects of operating activities be recognized (recorded)?
- Measurement issues: What amounts should be recognized?

ELEMENTS ON THE INCOME STATEMENT

PAPA JOHN'S INTERNATIONAL, INC.
Consolidated Statement of Income
For the Year Ended December 31, 2008
(dollars in thousands)

Operating Revenues	
Restaurant sales revenue	\$ 996,000
Franchise fee revenue	136,000
Total revenues	<u>1,132,000</u>
Operating Expenses	
Cost of sales	483,000
Salaries expense	193,000
Rent expense	35,000
Advertising expense	49,000
General and administrative expenses	100,000
Depreciation expense	33,000
Other operating expenses	172,000
Total expenses	<u>1,065,000</u>
Operating Income	67,000
Other Items	
Investment income	1,000
Interest expense	(8,000)
Loss on restaurants sold	(3,000)
Income before Income Taxes	57,000
Income tax expense	20,000
Net Income	<u>\$ 37,000</u>
Earnings per Share	<u>\$ 1.32</u>

It shows a recent income statement for Papa John's. It has multiple subtotals, such as operating income and income before income taxes. This format is known as **MULTIPLE STEP** and is very common.

Operating activities (central focus of the business)

Includes insurance, repairs, utilities, and fuel expenses

Subtotal of operating revenues minus operating expenses

Peripheral activities (not the main focus of the business)

Subtotal of all revenues minus all expenses except taxes

$= \$37,000,000 \text{ Net Income} \div 28,100,000 \text{ Average Number of Shares Outstanding (from Papa John's annual report)}$

OTHER ITEMS

Not all activities affecting an income statement are, however, central to ongoing operations. Any revenues, expenses, gains, or losses that result from these other activities are not included as part of operating income but are instead categorized as Other Items. Typically, these include:

- Investment Income (or Investment, Interest, or Dividend Revenue
- Interest Expense
- Gains (or Losses) on Sales of Assets.

OPERATING REVENUES

Revenues are defined as increases in assets or settlements of liabilities from ongoing operations of the business. Operating revenues result from the sale of goods or services. When Papa John's sells pizza to consumers or supplies to franchisees, it has earned revenue. When revenue is earned, assets, usually Cash or Accounts Receivable, often increase. Sometimes if a customer pays for goods or services in advance, a liability account, usually Unearned (or Deferred) Revenue, is created. At this point, no revenue has been earned. There is simply a receipt of cash in exchange for a promise to provide a good or service in the future. When the company provides the promised goods or services to the customer, the revenue is recognized, and the liability settled.

OPERATING EXPENSES

Some students confuse the terms expenditures and expenses. An **expenditure** is any outflow of cash for any purpose, whether to buy equipment, pay off a bank loan, or pay employees their wages. **Expenses** are decreases in assets or increases in liabilities from ongoing operations incurred to generate revenues during the period. Therefore, while **not all cash expenditures are expenses, expenses are necessary to generate revenues.**

Papa John's pays employees to make and serve food, uses electricity to operate equipment and light its facilities, advertises its pizza, and uses food and paper supplies. Without incurring these expenses, Papa John's could not generate revenues. Although some of the expenses may result from expenditures of cash at the time they are incurred, some expenses may be incurred after cash has been paid and others may be incurred before cash is paid. When an expense is incurred, assets such as Supplies decrease (are used up) or liabilities such as Salaries Payable or Utilities Payable increase.

INCOME TAX EXPENSE

Adding and subtracting other items to operating income gives a subtotal of income before income taxes (or pretax income). Income Tax Expense (also called Provision for Income Taxes) is the last expense listed on the income statement before determining net income. All profit-making corporations are required to compute income taxes owed to federal, state, and foreign governments. Income tax expense is calculated as a percentage of pretax income determined by applying the tax rates of the federal, state, local, and foreign taxing authorities.

EARNINGS PER SHARE

Corporations are required to disclose earnings per share on the income statement or in the notes to the financial statements. This ratio is widely used in evaluating the operating performance and profitability of a company. At this introductory level, we can compute earnings per share simply as net income divided by the average number of shares of stock outstanding (Net Income ÷ Average Number of Shares of Stock Outstanding). Please note, however, that the calculation of the ratio is actually much more complex and beyond the scope of this course.

Statement	Formula
#1 Income Statement	$\text{Revenues} - \text{Expenses} = \text{Net Income}$
#2 Statement of Stockholders' Equity	$\text{Beginning Retained Earnings} + \text{Net Income} - \text{Dividends Declared} = \text{Ending Retained Earnings}$ $\text{Beginning Contributed Capital} + \text{Stock Issuances} - \text{Stock Repurchases} = \text{Ending Contributed Capital}$ $\text{Ending Stockholders' Equity}$
#3 Balance Sheet	$\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity}$ <p>(includes Cash)</p>
#4 Statement of Cash Flows	$\text{Cash provided by (or used in) Operating Activities}$ $+/- \text{Cash provided by (or used in) Investing Activities}$ $+/- \text{Cash provided by (or used in) Financing Activities}$ <hr/> Change in Cash $+ \text{Beginning Cash}$ <hr/> Ending Cash

SUMMARY CHAPTER 3

1. Describe a typical business operating cycle and explain the necessity for the time period assumption. p. 103
 - The operating cycle, or cash-to-cash cycle, is the time needed to purchase goods or services from suppliers, sell the goods or services to customers, and collect cash from customers.
 - Time period assumption—to measure and report financial information periodically, we assume the long life of a company can be cut into shorter periods.

2. Explain how business activities affect the elements of the income statement. p. 104

- Elements of the income statement:
 - a. Revenues—increases in assets or settlements of liabilities from ongoing operations.
 - b. Expenses—decreases in assets or increases in liabilities from ongoing operations.
 - c. Gains—increases in assets or settlements of liabilities from peripheral activities.
 - d. Losses—decreases in assets or increases in liabilities from peripheral activities.

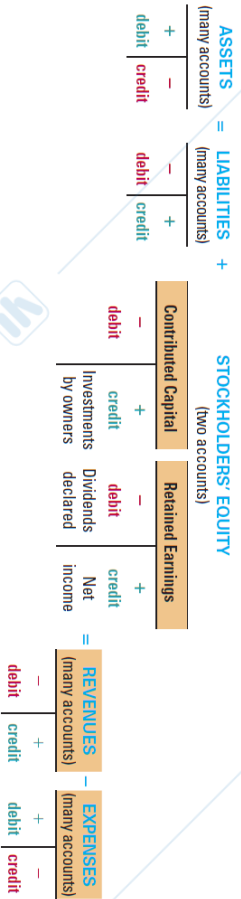
3. Explain the accrual basis of accounting and apply the revenue and matching principles to measure income. p. 108

In accrual basis accounting, revenues are recognized when earned and expenses are recognized when incurred.

- Revenue principle—recognize revenues when (1) delivery has occurred, (2) there is persuasive evidence of an arrangement for customer payment, (3) the price is fixed or determinable, and (4) collection is reasonably assured.
- Matching principle—recognize expenses when they are incurred in generating revenue.

4. Apply transaction analysis to examine and record the effects of operating activities on the financial statements. p. 113

The expanded transaction analysis model includes revenues and expenses:



5. Prepare financial statements. p. 122

Until the accounts have been updated to include all revenues earned and expenses incurred in the period (due to a difference in the time when cash is received or paid), the financial statements are unaudited:

- Classified income statement—net income is needed to determine ending Retained Earnings; classifications include Operating Revenues, Operating Expenses (to determine Operating Income), Other Items (to determine Pretax Income), Income Tax Expense, Net Income, and Earnings per Share.
- Statement of stockholders' equity—connects the income statement to the balance sheet.
- Classified balance sheet—classified into current and noncurrent assets, current and noncurrent liabilities, and stockholders' equity.
- Statement of cash flows—classifies sources and uses of cash into operating, investing, and financing activities.

6. Compute and interpret the total asset turnover ratio. p. 127

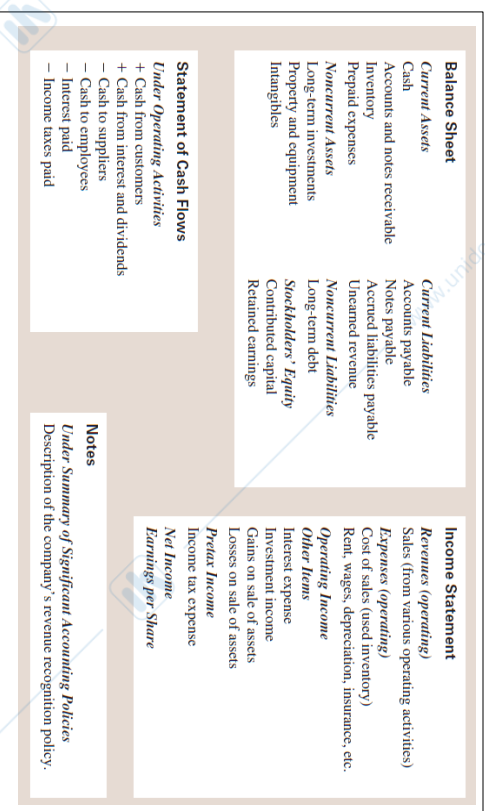
The total asset turnover ratio (Sales ÷ Average Total Assets) measures the sales generated per dollar of assets. The higher the ratio, the more efficient the company is at managing assets.

In this chapter, we discussed the operating cycle and accounting concepts relevant to income determination: the time period assumption, definitions of the income statement elements (revenues, expenses, gains, and losses), the revenue principle, and the matching principle. The accounting principles are defined in accordance with the accrual basis of accounting, which requires revenues to be recorded when earned and expenses to be recorded when incurred in the process of generating revenues. We expanded the transaction analysis model introduced in Chapter 2 by adding revenues and expenses and prepared unaudited financial statements. In Chapter 4, we discuss the activities that occur at the end of the accounting period: the adjustment process, the preparation of adjusted financial statements, and the closing process.

Total asset turnover ratio measures the sales generated per dollar of assets. A high ratio suggests that a company is managing its assets (the resources used to generate revenues) efficiently. The ratio is computed as follows (p. 127):

$$\text{Total Asset Turnover Ratio} = \frac{\text{Sales (or Operating) Revenues}}{\text{Average Total Assets}}$$

$$\text{"Average" is (Beginning Balance + Ending Balance) } \div 2$$



WHAT IS THE DIFFERENCE BETWEEN EBIT AND EBITDA?

EBIT

Earnings before interest and taxes (EBIT) is a company's net income before income tax expense and interest expense have been deducted. EBIT is used to analyze the performance of a company's core operations without tax expenses and the costs of the capital structure influencing profit. The following formula is used to calculate EBIT:

$$\text{EBIT} = \text{NI} + \text{IE} + \text{TE}$$

where: NI = Net income, IE = Interest expense, TE = Tax expense

Since net income is a figure that doesn't include interest expense and tax expense, they need to be added back to calculate EBIT. EBIT is often referred to as operating income since they both exclude taxes and interest expenses in their calculations. However, there are times when operating income can differ from EBIT.

EBT

Earnings before tax (EBT) reflects the operating profit that has been realized before accounting for taxes, while EBIT excludes both taxes and interest payments. EBT is calculated by taking net income and adding taxes back in to calculate a company's profit. By removing tax liabilities, investors can use EBT to evaluate a firm's operating performance after eliminating a variable outside of its control. In the United States, this is most useful for comparing companies that might have different state taxes or federal taxes. EBT and EBIT are similar to each other and are both variations of EBITDA.

EBITDA

EBITDA or earnings before interest, taxes, depreciation, and amortization is another widely used indicator to measure a company's financial performance and project earnings potential. EBITDA strips out debt financing as well as depreciation, and amortization expenses when calculating profitability. It also excludes taxes and interest expenses on debt. As a result, EBITDA helps to drill down to the profitability of a company's operational performance. EBITDA can be calculated by taking net income and adding back interest, taxes, depreciation, and amortization whereby:

$$\text{EBITDA} = \text{NP} + \text{I} + \text{T} + \text{D} + \text{A}$$

where:

NP = Net profit

I = Interest

T = Taxes

D = Depreciation

A = Amortization

RETURN ON EQUITY (ROE) VS. RETURN ON ASSETS (ROA)

Return on equity (ROE) and return on assets (ROA) are two of the most important measures for evaluating how effectively a company's management team is doing its job of managing the capital entrusted to it. The primary differentiator between ROE and ROA is financial leverage or debt. Although ROE and ROA are different measures of management effectiveness, the DuPont Identity formula shows how closely related they are.

The Formula for ROE:

$$\text{ROE} = \frac{\text{Net Income}}{\text{Shareholder Equity}}$$

where:

$$\text{Shareholder Equity} = \text{Assets} - \text{Liabilities}$$

The Formula for ROA:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}$$

where:

$$\text{Total Assets} = \text{Shareholder Equity} + \text{Liabilities}$$

MAIN DIFFERENCES

The way that a company's debt is taken into account is the main difference between ROE and ROA. In the absence of debt, shareholder equity and the company's total assets will be equal. Logically, their ROE and ROA would also be the same. But if that company takes on financial leverage, its ROE would rise above its ROA. By taking on debt, a company increases its assets thanks to the cash that comes in. But since shareholder equity equals assets minus total debt, a company decreases its equity by increasing debt. In other words, when debt increases, equity shrinks, and since shareholder equity is the ROE's denominator, its ROE, in turn, gets a boost.

HOW ROA AND ROE GIVE A CLEAR PICTURE OF CORPORATE HEALTH

- **ROE:** Let's calculate ROE for the fictional company Ed's Carpets. Ed's 2019 income statement puts its net income at \$3.822 billion. On the balance sheet, you'll find total stockholder equity for 2019 was \$25.268 billion; in 2018 it was \$6.814 billion. To calculate ROE, average shareholders' equity for 2019 and 2018 (\$25.268bn + \$6.814bn) ÷ 2 = \$16.041 bn) and divide net income for 2019 (\$3.822 billion) by that average. You will arrive at a return on equity of 0.23, or 23%. This tells us that in 2019 Ed's Carpets generated a 23% profit on every dollar invested by shareholders. Many professional investors look for a ROE of at least 15%. So, by this standard alone, Ed's Carpets' ability to squeeze profits from shareholders' money appears rather impressive.
- **ROA:** Let's look at Ed's again. You already know that it earned \$3.822 billion in 2019 and you can find total assets on the balance sheet. In 2019, Ed's Carpets' total assets amounted to \$448.507 billion. Its net income divided by total assets gives a return on assets of 0.0085, or 0.85%. This tells us that in 2019 Ed's Carpets earned less than 1% profit on the resources it owned. This is an extremely low number. In other words, this company's ROA tells a very different story about its performance than its ROE. Few professional money managers will consider stocks with a ROA of less than 5%.

THE DIFFERENCE IS ALL ABOUT LIABILITIES

The big factor that separates ROE and ROA is financial leverage or debt. The balance sheet's fundamental equation shows how this is true: assets = liabilities + shareholders' equity. This equation tells us that if a company carries no debt, its shareholders' equity and its total assets will be the same. It follows then that their ROE and ROA would also be the same. But if that company takes on financial leverage, ROE would rise above ROA. The balance sheet equation—if expressed differently—can help us see the reason for this: shareholders' equity = assets - liabilities. By taking on debt, a company increases its assets, thanks to the cash that comes in. But since equity equals assets minus total debt, a company decreases its equity by increasing debt. In other words, when debt increases, equity shrinks, and since equity is the ROE's denominator, ROE, in turn, gets a boost. At the same time, when a company takes on debt, the total assets—the denominator of ROA—increases. So, debt amplifies ROE in relation to ROA. Ed's balance sheet should reveal why the company's return on equity and return on assets were so different. The carpet-maker carried an enormous amount of debt, which kept its assets high while reducing shareholders' equity. In 2019, it had total liabilities that exceeded

\$422 billion—more than 16 times its total shareholders' equity of \$25.268 billion. Because ROE weighs net income only against owners' equity, it doesn't say much about how well a company uses its financing from borrowing and issuing bonds. Such a company may deliver an impressive ROE without actually being more effective at using the shareholders' equity to grow the company. ROA, because its denominator includes both debt and equity, can help you see how well a company puts both these forms of financing to use.

THE BOTTOM LINE

So, be sure to look at ROA as well as ROE. They are different, but together they provide a clear picture of management's effectiveness. If ROA is sound and debt levels are reasonable, a strong ROE is a solid signal that managers are doing a good job of generating returns from shareholders' investments. ROE is certainly a "hint" that management is giving shareholders more for their money. On the other hand, if ROA is low or the company is carrying a lot of debt, a high ROE can give investors a false impression about the company's fortunes.

Chiave di lettura	Significato
ROE < 2%	Risultato non soddisfacente
2% < ROE < 6%	Risultato non esaltante
ROE > 6%	Risultato soddisfacente