READING

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Financial Reporting Mechanics

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LEARNING OUTCOMES

Mastery	*The candidate should be able to:*
☐	**a.** describe how business activities are classified for financial reporting purposes;
☐	**b.** explain the relationship of financial statement elements and accounts, and classify accounts into the financial statement elements;
☐	**c.** explain the accounting equation in its basic and expanded forms;
☐	**d.** describe the process of recording business transactions using an accounting system based on the accounting equation;
☐	**e.** describe the need for accruals and valuation adjustments in preparing financial statements;
☐	**f.** describe the relationships among the income statement, balance sheet, statement of cash flows, and statement of owners' equity;
☐	**g.** describe the flow of information in an accounting system;
☐	**h.** describe the use of the results of the accounting process in security analysis.

Note: New rulings and/or pronouncements issued after the publication of the readings on financial reporting and analysis may cause some of the information in these readings to become dated. Candidates are expected to be familiar with the overall analytical framework contained in the study session readings, as well as the implications of alternative accounting methods for financial analysis and valuation, as provided in the assigned readings. Candidates are not responsible for changes that occur after the material was written.

International Financial Statement Analysis, by Thomas R. Robinson, CFA, Jan Hendrik van Greuning, CFA, Elaine Henry, CFA, and Michael A. Broihahn, CFA. © 2007 CFA Institute. All rights reserved.

1 INTRODUCTION

The financial statements of a company are end-products of a process for recording transactions of the company related to operations, financing, and investment. The structures of financial statements themselves reflect the system of recording and organizing transactions. To be an informed user of financial statements, the analyst must be knowledgeable about the principles of this system. This reading will supply that essential knowledge, taking the perspective of the user rather than the preparer. Learning the process from this perspective will enable an analyst to grasp the critical concepts without being overwhelmed by the detailed technical skills required by the accountants who prepare financial statements that are a major component of financial reports.

This reading is organized as follows: Section 2 describes the three groups into which business activities are classified for financial reporting purposes. Any transaction affects one or more of these groups. Section 3 describes how the elements of financial statements relate to accounts, the basic content unit of classifying transactions. The section is also an introduction to the linkages among the financial statements. Section 4 provides a step-by-step illustration of the accounting process. Section 5 explains the consequences of timing differences between the elements of a transaction. Section 6 provides an overview of how information flows through a business's accounting system. Section 7 introduces the use of financial reporting in security analysis. A summary of the key points and practice problems in the CFA Institute multiple-choice format conclude the reading.

2 THE CLASSIFICATION OF BUSINESS ACTIVITIES

Accountants give similar accounting treatment to similar types of business transactions. Therefore, a first step in understanding financial reporting mechanics is to understand how business activities are classified for financial reporting purposes.

Business activities may be classified into three groups for financial reporting purposes: operating, investing, and financing activities.

- **Operating activities** are those activities that are part of the day-to-day business functioning of an entity. Examples include the sale of meals by a restaurant, the sale of services by a consulting firm, the manufacture and sale of ovens by an oven-manufacturing company, and taking deposits and making loans by a bank.
- **Investing activities** are those activities associated with acquisition and disposal of long-term assets. Examples include the purchase of equipment or sale of surplus equipment (such as an oven) by a restaurant (contrast this to the sale of an oven by an oven manufacturer, which would be an operating activity), and the purchase or sale of an office building, a retail store, or a factory.
- **Financing activities** are those activities related to obtaining or repaying capital. The two primary sources for such funds are owners (shareholders) or creditors. Examples include issuing common shares, taking out a bank loan, and issuing bonds.

Understanding the nature of activities helps the analyst understand where the company is doing well and where it is not doing so well. Ideally, an analyst would prefer that most of a company's profits (and cash flow) come from its operating activities. Exhibit 1 provides examples of typical business activities and how these activities relate to the elements of financial statements described in the following section.

Exhibit 1 Typical Business Activities and Financial Statement Elements Affected

Operating activities	■ Sales of goods and services to customers: (R) ■ Costs of providing the goods and services: (X) ■ Income tax expense: (X) ■ Holding short-term assets or incurring short-term liabilities directly related to operating activities: (A), (L)
Investing activities	■ Purchase or sale of assets, such as property, plant, and equipment: (A) ■ Purchase or sale of other entities' equity and debt securities: (A)
Financing activities	■ Issuance or repurchase of the company's own preferred or common stock: (E) ■ Issuance or repayment of debt: (L) ■ Payment of distributions (i.e., dividends to preferred or common stockholders): (E)

Accounting elements: Assets (A), Liabilities (L), Owners' Equity (E), Revenue (R), and Expenses (X).

Not all transactions fit neatly in this framework for purposes of financial statement presentation. For example, interest received by a bank on one of its loans would be considered part of operating activities because a bank is in the business of lending money. In contrast, interest received on a bond investment by a restaurant may be more appropriately classified as an investing activity because the restaurant is not in the business of lending money.

The next section discusses how transactions resulting from these business activities are reflected in a company's financial records.

ACCOUNTS AND FINANCIAL STATEMENTS

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Business activities resulting in transactions are reflected in the broad groupings of financial statement elements: Assets, Liabilities, Owners' Equity, Revenue, and Expenses.[1] In general terms, these elements can be defined as follows: **assets** are the economic resources of a company; **liabilities** are the creditors' claims on the resources

1 International Financial Reporting Standards use the term "income" to include revenue and gains. Gains are similar to revenue; however, they arise from secondary or peripheral activities rather than from a company's primary business activities. For example, for a restaurant, the sale of surplus restaurant equipment for more than its cost is referred to as a gain rather than revenue. Similarly, a loss is like an expense but arises from secondary activities. Gains and losses may be considered part of operations on the income statement (for example, a loss due to a decline in value of inventory) or may be part of nonoperating activities (for example, the sale of nontrading investments). Under US GAAP, financial statement elements are defined to include assets, liabilities, owners' equity, revenue, expenses, gains, and losses. To illustrate business transactions in this reading, we will use the simple classification of revenues and expenses. All gains and revenue will be aggregated in revenue, and all losses and expenses will be aggregated in expenses.

of a company; **owners' equity** is the residual claim on those resources; **revenues** are inflows of economic resources to the company; and **expenses** are outflows of economic resources or increases in liabilities.[2]

Accounts provide individual records of increases and decreases in a *specific* asset, liability, component of owners' equity, revenue, or expense. The financial statements are constructed using these elements.

3.1 Financial Statement Elements and Accounts

Within the financial statement elements, accounts are subclassifications. **Accounts** are individual records of increases and decreases in a specific asset, liability, component of owners' equity, revenue, or expense. For financial statements, amounts recorded in every individual account are summarized and grouped appropriately within a financial statement element. Exhibit 2 provides a listing of common accounts. These accounts will be described throughout this reading or in following readings. Unlike the financial statement elements, there is no standard set of accounts applicable to all companies. Although almost every company has certain accounts, such as cash, each company specifies the accounts in its accounting system based on its particular needs and circumstances. For example, a company in the restaurant business may not be involved in trading securities and, therefore, may not need an account to record such an activity. Furthermore, each company names its accounts based on its business. A company in the restaurant business might have an asset account for each of its ovens, with the accounts named "Oven-1" and "Oven-2." In its financial statements, these accounts would likely be grouped within long-term assets as a single line item called "Property, plant, and equipment."

A company's challenge is to establish accounts and account groupings that provide meaningful summarization of voluminous data but retain enough detail to facilitate decision making and preparation of the financial statements. The actual accounts used in a company's accounting system will be set forth in a **chart of accounts**. Generally, the chart of accounts is far more detailed than the information presented in financial statements.

Certain accounts are used to offset other accounts. For example, a common asset account is accounts receivable, also known as "trade accounts receivable" or "trade receivables." A company uses this account to record the amounts it is owed by its customers. In other words, sales made on credit are reflected in accounts receivable. In connection with its receivables, a company often expects some amount of uncollectible accounts and, therefore, records an estimate of the amount that may not be collected. The estimated uncollectible amount is recorded in an account called **allowance for bad debts**. Because the effect of the allowance for bad debts account is to reduce the balance of the company's accounts receivable, it is known as a "contra asset account." Any account that is offset or deducted from another account is called a "**contra account**." Common contra accounts include allowance for bad debts (an offset to accounts receivable for the amount of accounts receivable that are estimated to be uncollectible), **accumulated depreciation** (an offset to property, plant, and equipment reflecting the amount of the cost of property, plant, and equipment that has been allocated to current and previous accounting periods), and **sales returns and allowances** (an offset to revenue reflecting any cash refunds, credits on account, and discounts from sales prices given to customers who purchased defective or unsatisfactory items).

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2 The authoritative accounting standards provide significantly more detailed definitions of the accounting elements. Also note that "owners' equity" is a generic term and more specific titles are often used such as "shareholders' equity," "stockholders' equity," or "partners' capital." The broader terms "equity" and "capital" are also used on occasion.

Exhibit 2 Common Accounts

Assets	■ Cash and cash equivalents ■ Accounts receivable, trade receivables ■ Prepaid expenses ■ Inventory ■ Property, plant, and equipment ■ Investment property ■ Intangible assets (patents, trademarks, licenses, copyright, goodwill) ■ Financial assets, trading securities, investment securities ■ Investments accounted for by the equity method ■ Current and deferred tax assets ■ [for banks, Loans (receivable)]
Liabilities	■ Accounts payable, trade payables ■ Provisions or accrued liabilities ■ Financial liabilities ■ Current and deferred tax liabilities ■ Reserves ■ Unearned revenue ■ Debt payable ■ Bonds (payable) ■ [for banks, Deposits]
Owners' Equity	■ Capital, such as common stock par value ■ Additional paid-in capital ■ Retained earnings ■ Other comprehensive income ■ Minority interest
Revenue	■ Revenue, sales ■ Gains ■ Investment income (e.g., interest and dividends)
Expense	■ Cost of goods sold ■ Selling, general, and administrative expenses "SG&A" (e.g., rent, utilities, salaries, advertising) ■ Depreciation and amortization ■ Interest expense ■ Tax expense ■ Losses

For presentation purposes, assets are sometimes categorized as "current" or "non-current." For example, Tesco (a large European retailer) presents the following major asset accounts in its 2006 financial reports:

Non-current assets:

- Intangible assets including goodwill;
- Property, plant, and equipment;

- Investment property;
- Investments in joint ventures and associates.

Current assets:

- Inventories;
- Trade and other receivables;
- Cash and cash equivalents.

Non-current assets are assets that are expected to benefit the company over an extended period of time (usually more than one year). For Tesco, these include the following: intangible assets, such as goodwill;[3] property, plant, and equipment used in operations (e.g., land and buildings); other property held for investment, and investments in the securities of other companies.

Current assets are those that are expected to be consumed or converted into cash in the near future, typically one year or less. **Inventory** is the unsold units of product on hand (sometimes referred to as inventory stock). **Trade receivables** (also referred to as **commercial receivables**, or simply **accounts receivable**) are amounts customers owe the company for products that have been sold as well as amounts that may be due from suppliers (such as for returns of merchandise). **Other receivables** represent amounts owed to the company from parties other than customers. **Cash** refers to cash on hand (e.g., petty cash and cash not yet deposited to the bank) and in the bank. **Cash equivalents** are very liquid short-term investments, usually maturing in 90 days or less. The presentation of assets as current or non-current will vary from industry to industry and from country to country. Some industries present current assets first, whereas others list non-current assets first. This is discussed further in later readings.

3.2 Accounting Equations

The five financial statement elements noted previously serve as the inputs for equations that underlie the financial statements. This section describes the equations for three of the financial statements: balance sheet, income statement, and statement of retained earnings. A statement of retained earnings can be viewed as a component of the statement of stockholders' equity, which shows *all* changes to owners' equity, both changes resulting from retained earnings and changes resulting from share issuance or repurchase. The fourth basic financial statement, the statement of cash flows, will be discussed in a later section.

The **balance sheet** presents a company's financial position at a *particular point in time*. It provides a listing of a company's assets and the claims on those assets (liabilities and equity claims). The equation that underlies the balance sheet is also known as the "basic accounting equation." A company's financial position is reflected using the following equation:

$$\text{Assets} = \text{Liabilities} + \text{Owners' equity} \quad \text{(1a)}$$

Presented in this form, it is clear that claims on assets are from two sources: liabilities or owners' equity. Owners' equity is the **residual claim** of the owners (i.e., the owners' remaining claim on the company's assets after the liabilities are deducted).

3 **Goodwill** is an intangible asset that represents the excess of the purchase price of an acquired company over the value of the net assets acquired.

The concept of the owners' residual claim is well illustrated by the slightly rearranged balance sheet equation, roughly equivalent to the structure commonly seen in the balance sheets of UK companies:

Assets – Liabilities = Owners' equity **(1b)**

Other terms are used to denote owners' equity, including shareholders' equity, stockholders' equity, net assets, equity, net worth, net book value, and partners' capital. The exact titles depend upon the type of entity, but the equation remains the same. Owners' equity at a given date can be further classified by its origin: capital contributed by owners, and earnings retained in the business up to that date:[4]

Owners' equity = Contributed capital + Retained earnings **(2)**

The **income statement** presents the performance of a business for a *specific period of time*. The equation reflected in the income statement is the following:

Revenue – Expenses = Net income (loss) **(3)**

Note that **net income** (loss) is the difference between two of the elements: revenue and expenses. When a company's revenue exceeds its expenses, it reports net income; when a company's revenues are less than its expenses, it reports a net loss. Other terms are used synonymously with revenue, including sales and turnover (in the United Kingdom). Other terms used synonymously with net income include net profit and net earnings.

Also, as noted earlier, revenue and expenses generally relate to providing goods or services in a company's primary business activities. In contrast, gains (losses) relate to increases (decreases) in resources that are not part of a company's primary business activities. Distinguishing a company's primary business activities from other business activities is important in financial analysis; however, for purposes of the accounting equation, gains are included in revenue and losses are included in expenses.

The balance sheet and income statement are two of the primary financial statements. Although these are the common terms for these statements, some variations in the names occur. A balance sheet can be referred to as a "statement of financial position" or some similar term that indicates it contains balances at a point in time. Income statements can be titled "statement of operations," "statement of income," "statement of profit and loss," or some other similar term showing that it reflects the company's operating activity for a period of time. A simplified balance sheet and income statement are shown in Exhibit 3.

Exhibit 3 Simplified Balance Sheet and Income Statement

ABC Company, Inc. Balance Sheet As of 31 December 20X1		ABC Company, Inc. Income Statement For the Year Ended 31 December 20X1	
Assets	2,000	Revenue	250
Liabilities	500	Expense	50

(continued)

4 This formula reflects the fundamental origins of owners' equity and reflects the basic principles of accounting. The presentation is somewhat simplified. In practice, the owners' equity section of a company's balance sheet may include other items, such as treasury stock (which arises when a company repurchases and holds its own stock) or other comprehensive income. **Comprehensive income** includes all income of the company. Some items of comprehensive income are not reported on the income statement. These items as a group are called **other comprehensive income**; such items arise, for example, when there are changes in the value of assets or liabilities that are not reflected in the income statement.

Exhibit 3 (Continued)

ABC Company, Inc. Balance Sheet As of 31 December 20X1		ABC Company, Inc. Income Statement For the Year Ended 31 December 20X1	
Owners' equity	1,500	Net income	200
	2,000		

The balance sheet represents a company's financial position at a point in time, and the income statement represents a company's activity over a period of time. The two statements are linked together through the retained earnings component of owners' equity. Beginning retained earnings is the balance in this account at the beginning of the accounting period, and ending retained earnings is the balance at the end of the period. A company's ending retained earnings is composed of the beginning balance (if any), plus net income, less any distributions to owners (dividends). Accordingly, the equation underlying retained earnings is:

$$\text{Ending retained earnings} = \text{Beginning retained earnings} + \text{Net income} - \text{Dividends} \quad \textbf{(4a)}$$

Or, substituting Equation 3 for Net income, equivalently:

$$\text{Ending retained earnings} = \text{Beginning retained earnings} + \text{Revenues} - \text{Expenses} - \text{Dividends} \quad \textbf{(4b)}$$

As its name suggests, retained earnings represent the earnings (i.e., net income) that are retained by the company—in other words, the amount not distributed as dividends to owners. Retained earnings is a component of owners' equity and links the "as of" balance sheet equation with the "activity" equation of the income statement. To provide a combined representation of the balance sheet and income statement, we can substitute Equation 2 into Equation 1a. This becomes the expanded accounting equation:

$$\text{Assets} = \text{Liabilities} + \text{Contributed capital} + \text{Ending retained earnings} \quad \textbf{(5a)}$$

Or equivalently, substituting Equation 4b into Equation 5a, we can write:

$$\text{Assets} = \text{Liabilities} + \text{Contributed capital} + \text{Beginning retained earnings} + \text{Revenue} - \text{Expenses} - \text{Dividends} \quad \textbf{(5b)}$$

The last five items, beginning with contributed capital, are components of owners' equity.

The **statement of retained earnings** shows the linkage between the balance sheet and income statement. Exhibit 4 shows a simplified example of financial statements for a company that began the year with retained earnings of $250 and recognized $200 of net income during the period. The example assumes the company paid no dividends and, therefore, had ending retained earnings of $450.

Exhibit 4 Simplified Balance Sheet, Income Statement, and Statement of Retained Earnings

Point in Time: Beginning of Period Balance Sheet		Change over Time: Income Statement *and* Changes in Retained Earnings		Point in Time: End of Period Balance Sheet	
ABC Company, Inc. (Beginning) Balance Sheet As of 31 December 20X0		**ABC Company, Inc. Income Statement Year Ended 31 December 20X1**		**ABC Company, Inc. (Ending) Balance Sheet As of 31 December 20X1**	
Assets	2,000	Revenue	250	Assets	2,200
		Expense	50		
Liabilities	500	Net income	200	Liabilities	500
Contributed equity	1,250			Contributed equity	1,250
Retained earnings	**250**			**Retained earnings**	**450**
Owners' equity	1,500			Owners' equity	1,700
	2,000				2,200
		ABC Company, Inc. Statement of Retained Earnings Year Ended 31 December 20X1			
		Beginning retained earnings	**250**		
		Plus net income	200		
		Minus dividends	0		
		Ending retained earnings	**450**		

The basic accounting equation reflected in the balance sheet (Assets = Liabilities + Owners' equity) implies that every recorded transaction affects at least two accounts in order to keep the equation in balance, hence the term **double-entry accounting** that is sometimes used to describe the accounting process. For example, the use of cash to purchase equipment affects two accounts (both asset accounts): cash decreases and equipment increases. As another example, the use of cash to pay off a liability also affects two accounts (one asset account and one liability account): cash decreases and the liability decreases. With each transaction, the accounting equation remains in balance, which is a fundamental accounting concept. Example 1 presents a partial balance sheet for an actual company and an application of the accounting equation. Examples 2 and 3 provide further practice for applying the accounting equations.

EXAMPLE 1

Using Accounting Equations (1)

Canon is a manufacturer of copy machines and other electronic equipment. Abbreviated balance sheets as of 31 December 2004 and 2005 are presented below.

Canon and Subsidiaries Consolidated Balance Sheets (Millions of Yen)		
	31 Dec 2005	**31 Dec 2004**
Assets		
Total assets	¥4,043,553	¥3,587,021
Liabilities and stockholders' equity		
Total liabilities	1,238,535	1,190,331

(continued)

Canon and Subsidiaries Consolidated Balance Sheets (Millions of Yen)		
	31 Dec 2005	**31 Dec 2004**
Total stockholders' equity	?	2,396,690
Total liabilities and stockholders' equity	¥4,043,553	¥3,587,021

Using Equation 1a, address the following:

1 Determine the amount of stockholders' equity as of 31 December 2005.

2 A Calculate and contrast the absolute change in total assets in 2005 with the absolute change in total stockholders' equity in 2005.

B Based on your answer to 2A, state and justify the relative importance of growth in stockholders' equity and growth in liabilities in financing the growth of assets over the two years.

Solution to 1:

Total stockholders' equity is equal to assets minus liabilities; in other words, it is the residual claim to the company's assets after deducting liabilities. For 2005, the amount of Canon's total stockholders' equity was thus ¥4,043,553 million – ¥1,238,535 million = ¥2,805,018 million in 2005.

Solutions to 2:

A Total assets increased by ¥4,043,553 million – ¥3,587,021 million = ¥456,532 million. Total stockholders' equity increased by ¥2,805,018 million – ¥2,396,690 million = ¥408,328 million. Thus, in 2005, total assets grew by more than total stockholders' equity (¥456,532 million is larger than ¥408,328 million).

B Using the relationship Assets = Liabilities + Owners' equity, the solution to 2A implies that total liabilities increased by the difference between the increase in total assets and the increase in total stockholders' equity, that is, by ¥456,532 million – ¥408,328 million = ¥48,204 million. (If liabilities had not increased by ¥48,204 million, the accounting equation would not be in balance.) Contrasting the growth in total stockholders' equity (¥408,328 million) with the growth in total liabilities (¥48,204 million), we see that the growth in stockholders' equity was relatively much more important than the growth in liabilities in financing total asset growth in 2005.

EXAMPLE 2

Using Accounting Equations (2)

An analyst has collected the following information regarding a company in advance of its year-end earnings announcement (amounts in millions):

Estimated net income	$150
Beginning retained earnings	$2,000
Estimated distributions to owners	$50

The analyst's estimate of ending retained earnings (in millions) should be closest to:

A $2,000.

B $2,100.

C $2,150.

Solution:

B is correct. Beginning retained earnings is increased by net income and reduced by distributions to owners: $2,000 + $150 – $50 = $2,100.

EXAMPLE 3

Using Accounting Equations (3)

An analyst has compiled the following information regarding RDZ, Inc.

Liabilities at year-end	€1,000
Contributed capital at year-end	€1,000
Beginning retained earnings	€500
Revenue during the year	€4,000
Expenses during the year	€3,800

There have been no distributions to owners. The analyst's estimate of total assets at year-end should be closest to:

A €2,300.

B €2,500.

C €2,700.

Solution:

C is correct. Ending retained earnings is first determined by adding revenue minus expenses to beginning retained earnings to obtain €700. Total assets would be equal to the sum of liabilities, contributed capital, and ending retained earnings: €1,000 + €1,000 + €700 = €2,700.

Having described the components and linkages of financial statements in abstract terms, we now examine more concretely how business activities are recorded. The next section illustrates the accounting process with a simple step-by-step example.

4 THE ACCOUNTING PROCESS

The accounting process involves recording business transactions such that periodic financial statements can be prepared. This section illustrates how business transactions are recorded in a simplified accounting system.

4.1 An Illustration

Key concepts of the accounting process can be more easily explained using a simple illustration. We look at an illustration in which three friends decide to start a business, Investment Advisers, Ltd. (IAL). They plan to issue a monthly newsletter of securities trading advice and to sell investment books. Although they do not plan to manage any clients' funds, they will manage a trading portfolio of the owners' funds to demonstrate the success of the recommended strategies from the newsletter. Because this illustration is meant to present accounting concepts, any regulatory implications will not be addressed. Additionally, for this illustration, we will assume that the entity will not be subject to income taxes; any income or loss will be passed through to the owners and be subject to tax on their personal income tax returns.

As the business commences, various business activities occur. Exhibit 5 provides a listing of the business activities that have taken place in the early stages of operations. Note that these activities encompass the types of operating, investing, and financing business activities discussed above.

Exhibit 5 Business Activities for Investment Advisers, Ltd.

#	Date	Business Activity
1	31 December 2005	■ File documents with regulatory authorities to establish a separate legal entity. Initially capitalize the company through deposit of $150,000 from the three owners.
2	2 January 2006	■ Set up a $100,000 investment account and purchase a portfolio of equities and fixed-income securities.
3	2 January 2006	■ Pay $3,000 to landlord for office/warehouse. $2,000 represents a refundable deposit, and $1,000 represents the first month's rent.
4	3 January 2006	■ Purchase office equipment for $6,000. The equipment has an estimated life of two years with no salvage value.*
5	3 January 2006	■ Receive $1,200 cash for a one-year subscription to the monthly newsletter.
6	10 January 2006	■ Purchase and receive 500 books at a cost of $20 per book for a total of $10,000. Invoice terms are that payment from IAL is due in 30 days. No cash changes hands. These books are intended for resale.
7	10 January 2006	■ Spend $600 on newspaper and trade magazine advertising for the month.
8	15 January 2006	■ Borrow $12,000 from a bank for working capital. Interest is payable annually at 10 percent. The principal is due in two years.
9	15 January 2006	■ Ship first order to a customer consisting of five books at $25 per book. Invoice terms are that payment is due in 30 days. No cash changes hands.
10	15 January 2006	■ Sell for cash 10 books at $25 per book at an investment conference.
11	30 January 2006	■ Hire a part-time clerk. The clerk is hired through an agency that also handles all payroll taxes. The company is to pay $15 per hour to the agency. The clerk works six hours prior to 31 January, but no cash will be paid until February.

Exhibit 5 (Continued)

12	31 January 2006	■ Mail out the first month's newsletter to customer. This subscription had been sold on 3 January. See item 5.
13	31 January 2006	■ Review of the investment portfolio shows that $100 of interest income was earned and the market value of the portfolio has increased by $2,000. The balance in the investment account is now $102,100. The securities are classified as "trading" securities.

*__Salvage value__ (residual value) is the amount the company estimates that it can sell the asset for at the end of its useful life.

4.2 The Accounting Records

If the owners want to evaluate the business at the end of January 2006, Exhibit 5 does not provide a sufficiently meaningful report of what transpired or where the company currently stands. It is clear that a system is needed to track this information and to address three objectives:

- Identify those activities requiring further action (e.g., collection of outstanding receivable balances).
- Assess the profitability of the operations over the month.
- Evaluate the current financial position of the company (such as cash on hand).

An accounting system will translate the company's business activities into usable financial records. The basic system for recording transactions in this illustration is a spreadsheet with each of the different types of accounts represented by a column. The accounting equation provides a basis for setting up this system. Recall the accounting Equation 5b:

Assets = Liabilities + Contributed capital + Beginning retained earnings + Revenue − Expenses − Dividends

The specific accounts to be used for IAL's system include the following:

- Asset Accounts:
  - Cash
  - Investments
  - Prepaid rent (cash paid for rent in advance of recognizing the expense)
  - Rent deposit (cash deposited with the landlord, but returnable to the company)
  - Office equipment
  - Inventory
  - Accounts receivable
- Liability Accounts:
  - Unearned fees (fees that have not been earned yet, even though cash has been received)
  - Accounts payable (amounts owed to suppliers)
  - Bank debt
- Equity Accounts:
  - Contributed capital

Retained earnings
Income
Revenue
Expenses
Dividends

Exhibit 6 presents the spreadsheet representing IAL's accounting system for the first 10 transactions. Each event is entered on a new row of the spreadsheet as it occurs. To record events in the spreadsheet, the financial impact of each needs to be assessed and the activity expressed as an accounting transaction. In assessing the financial impact of each event and converting these events into accounting transactions, the following steps are taken:

1. Identify which accounts are affected, by what amount, and whether the accounts are increased or decreased.
2. Determine the element type for each account identified in Step 1 (e.g., cash is an asset) and where it fits in the basic accounting equation. Rely on the economic characteristics of the account and the basic definitions of the elements to make this determination.
3. Using the information from Steps 1 and 2, enter the amounts in the appropriate column of the spreadsheet.
4. Verify that the accounting equation is still in balance.

At any point in time, basic financial statements can be prepared based on the subtotals in each column.

The following discussion identifies the accounts affected and the related element (Steps 1 and 2) for the first 10 events listed in Exhibit 5. The accounting treatment shows the account affected in bold and the related element in brackets. The recording of these entries into a basic accounting system (Steps 3 and 4) is depicted on the spreadsheet in Exhibit 6.

Because this is a new business, the accounting equation begins at zero on both sides. There is a zero beginning balance in all accounts.

31 December 2005

#	Business Activity	Accounting Treatment
1	■ File documents with regulatory authorities to establish a separate legal entity. Initially capitalize the company through deposit of $150,000 from the three owners.	■ **Cash** [A] is increased by $150,000, and **contributed capital** [E]* is increased by $150,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).
*The account title will vary depending upon the type of entity (incorporated or not) and jurisdiction. Alternative account titles are "common shares," "common stock," "members' capital," "partners' capital," etc.

This transaction affects two elements: assets and equity. Exhibit 6 demonstrates this effect on the accounting equation. The company's balance sheet at this point in time would be presented by subtotaling the columns in Exhibit 6:

Exhibit 6 Accounting System for Investment Advisers, Ltd.

	Assets =			Liabilities		+		Owners' Equity		
#	Cash	Other Assets	Account	Amount	Account	Contributed Capital	Beginning Retained Earnings	Revenue	Expense	Dividends
Beg. Balance	0	0		0		0	0	0	0	0
1 Capitalize	150,000					150,000				
2 Investments	(100,000)	100,000	Investments							
3 Pay landlord	(3,000)	1,000	Prepaid rent							
		2,000	Rent deposit							
4 Buy equipment	(6,000)	6,000	Office equipment							
5 Sell subscription	1,200			1,200	Unearned fees					
6 Buy books		10,000	Inventory	10,000	Accounts payable					
7 Advertise	(600)								(600)	
8 Borrow	12,000			12,000	Bank debt					
9 Sell books on account		125	Accounts receivable					125	(100)	
		(100)	Inventory							
10 Cash sale	250	(200)	Inventory					250	(200)	
Subtotal	**53,850**	**118,825**		**23,200**		**150,000**		**375**	**(900)**	

Investment Advisers, Ltd. Balance Sheet As of 31 December 2005	
Assets	
Cash	$150,000
Total assets	$150,000
Liabilities and owners' equity	
Contributed capital	$150,000
Total liabilities and owners' equity	$150,000

The company has assets (resources) of $150,000, and the owners' claim on the resources equals $150,000 (their contributed capital) as there are no liabilities at this point.

For this illustration, we present an unclassified balance sheet. An **unclassified balance sheet** is one that does not show subtotals for current assets and current liabilities. Assets are simply listed in order of liquidity (how quickly they are expected to be converted into cash). Similarly, liabilities are listed in the order in which they are expected to be satisfied (or paid off).

2 January 2006

#	Business Activity	Accounting Treatment
2	■ Set up a $100,000 investment account and purchase a portfolio of equities and fixed-income securities.	■ **Investments** [A] were increased by $100,000, and **cash** [A] was decreased by $100,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

This transaction affects two accounts, but only one element (assets) and one side of the accounting equation, as depicted in Exhibit 6. Cash is reduced when the securities are purchased. Another type of asset, investments, increases. We examine the other transaction from 2 January before taking another look at the company's balance sheet.

2 January 2006

#	Business Activity	Accounting Treatment
3	■ Pay $3,000 to landlord for office/warehouse. $2,000 represents a refundable deposit, and $1,000 represents the first month's rent.	■ **Cash** [A] was decreased by $3,000, **deposits** [A] were increased by $2,000, and **prepaid rent** [A] was increased by $1,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Once again, this transaction affects only asset accounts. Note that the first month's rent is initially recorded as an asset, prepaid rent. As time passes, the company will incur rent expense, so a portion of this prepaid asset will be transferred to expenses

and thus will appear on the income statement as an expense.[5] This will require a later adjustment in our accounting system. Note that the transactions so far have had no impact on the income statement. At this point in time, the company's balance sheet would be:

Investment Advisers, Ltd. Balance Sheet
As of 2 January 2006

Assets	
Cash	$47,000
Investments	100,000
Prepaid rent	1,000
Deposits	2,000
Total assets	$150,000
Liabilities and owners' equity	
Contributed capital	$150,000
Total liabilities and owners' equity	$150,000

Note that the items in the balance sheet have changed, but it remains in balance; the amount of total assets equals total liabilities plus owners' equity. The company still has $150,000 in resources, but the assets now comprise cash, investments, prepaid rent, and deposits. Each asset is listed separately because they are different in terms of their ability to be used by the company. Note also that the owners' equity claim on these assets remains $150,000 because the company still has no liabilities.

3 January 2006

#	Business Activity	Accounting Treatment
4	■ Purchase office equipment for $6,000 in cash. The equipment has an estimated life of two years with no salvage value.	■ **Cash** [A] was decreased by $6,000, and **office equipment** [A] was increased by $6,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

The company has once again exchanged one asset for another. Cash has decreased while office equipment has increased. Office equipment is a resource that will provide benefits over multiple future periods and, therefore, its cost must also be spread over multiple future periods. This will require adjustments to our accounting records as time passes. **Depreciation** is the term for the process of spreading this cost over multiple periods.

5 An argument can be made for treating this $1,000 as an immediate expense. We adopt the approach of recording a prepaid asset in order to illustrate accrual accounting. A situation in which a company prepays rent (or insurance or any similar expense) for a time span covering multiple accounting periods more clearly requires the use of accrual accounting.

3 January 2006

#	Business Activity	Accounting Treatment
5	■ Receive $1,200 cash for a one-year subscription to the monthly newsletter.	■ **Cash** [**A**] was increased by $1,200, and **unearned fees** [**L**] was increased by $1,200.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

In this transaction, the company has received cash related to the sale of subscriptions. However, the company has not yet actually earned the subscription fees because it has an obligation to deliver newsletters in the future. So, this amount is recorded as a liability called **unearned fees** (or **unearned revenue**). In the future, as the company delivers the newsletters and thus fulfills its obligation, this amount will be transferred to revenue. If the company fails to deliver the newsletters, the fees will need to be returned to the customer. As of 3 January 2006, the company's balance sheet would appear as

Investment Advisers, Ltd. Balance Sheet As of 3 January 2006	
Assets	
Cash	$42,200
Investments	100,000
Prepaid rent	1,000
Deposits	2,000
Office equipment	6,000
Total assets	$151,200
Liabilities and owners' equity	
Liabilities	
Unearned fees	$1,200
Equity	
Contributed capital	150,000
Total liabilities and owners' equity	$151,200

The company now has $151,200 of resources, against which there is a claim by the subscription customer of $1,200 and a residual claim by the owners of $150,000. Again, the balance sheet remains in balance, with total assets equal to total liabilities plus equity.

10 January 2006		
#	**Business Activity**	**Accounting Treatment**
6	■ Purchase and receive 500 books at a cost of $20 per book for a total of $10,000. Invoice terms are that payment from IAL is due in 30 days. No cash changes hands. These books are intended for resale.	■ **Inventory** [**A**] is increased by $10,000, and **accounts payable** [**L**] is increased by $10,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

The company has obtained an asset, inventory, which can be sold to customers at a later date. Rather than paying cash to the supplier currently, the company has incurred an obligation to do so in 30 days. This represents a liability to the supplier that is termed accounts payable.

10 January 2006		
#	**Business Activity**	**Accounting Treatment**
7	■ Spend $600 on newspaper and trade magazine advertising for the month.	■ **Cash** [**A**] was decreased by $600, and **advertising expense** [**X**] was increased by $600.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Unlike the previous expenditures, advertising is an expense, not an asset. Its benefits relate to the current period. Expenditures such as advertising are recorded as an expense when they are incurred. Contrast this expenditure with that for equipment, which is expected to be useful over multiple periods and thus is initially recorded as an asset, and then reflected as an expense over time. Also, contrast this treatment with that for rent expense, which was paid in advance and can be clearly allocated over time, and thus is initially recorded as a prepaid asset and then reflected as an expense over time. The advertising expenditure in this example relates to the current period. If the company had paid in advance for several years worth of advertising, then a portion would be capitalized (i.e., recorded as an asset), similar to the treatment of equipment or prepaid rent and expensed in future periods. We can now prepare a partial income statement for the company reflecting this expense:

Investment Advisers, Ltd. Income Statement For the Period 1 January through 10 January 2006		
Total revenue		$0
Expenses		
Advertising	600	
Total expense		600
Net income (loss)		$(600)

Because the company has incurred a $600 expense but has not recorded any revenue (the subscription revenue has not been earned yet), an income statement for Transactions 1 through 7 would show net income of minus $600 (i.e., a net loss). To

prepare a balance sheet for the company, we need to update the retained earnings account. Beginning retained earnings was $0 (zero). Adding the net loss of $600 (made up of $0 revenue minus $600 expense) and deducting any dividend ($0 in this illustration) gives ending retained earnings of minus $600. The ending retained earnings covering Transactions 1–7 is included in the interim balance sheet:

Investment Advisers, Ltd. Balance Sheet As of 10 January 2006	
Assets	
Cash	$41,600
Investments	100,000
Inventory	10,000
Prepaid rent	1,000
Deposits	2,000
Office equipment	6,000
Total assets	$160,600
Liabilities and owners' equity	
Liabilities	
Accounts payable	$10,000
Unearned fees	1,200
Total liabilities	11,200
Equity	
Contributed capital	150,000
Retained earnings	(600)
Total equity	149,400
Total liabilities and owners' equity	$160,600

As with all balance sheets, the amount of total assets equals total liabilities plus owners' equity—both are $160,600. The owners' claim on the business has been reduced to $149,400. This is due to the negative retained earnings (sometimes referred to as a retained "deficit"). As noted, the company has a net loss after the first seven transactions, a result of incurring $600 of advertising expenses but not yet producing any revenue.

15 January 2006

#	Business Activity	Accounting Treatment
8	■ Borrow $12,000 from a bank for working capital. Interest is payable annually at 10 percent. The principal is due in two years.	■ **Cash** [**A**] is increased by $12,000, and **bank debt** [**L**] is increased by $12,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Cash is increased, and a corresponding liability is recorded to reflect the amount owed to the bank. Initially, no entry is made for interest that is expected to be paid on the loan. In the future, interest will be recorded as time passes and interest accrues (accumulates) on the loan.

15 January 2006

#	Business Activity	Accounting Treatment
9	■ Ship first order to a customer consisting of five books at $25 per book. Invoice terms are that payment is due in 30 days. No cash changes hands.	■ **Accounts receivable** [**A**] increased by $125, and **revenue** [**R**] increased by $125. Additionally, **inventory** [**A**] decreased by $100, and **cost of goods sold** [**X**] increased by $100.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

The company has now made a sale. Sale transaction records have two parts. One part represents the $125 revenue to be received from the customer, and the other part represents the $100 cost of the goods that have been sold. Although payment has not yet been received from the customer in payment for the goods, the company has delivered the goods (five books) and so revenue is recorded. A corresponding asset, accounts receivable, is recorded to reflect amounts due from the customer. Simultaneously, the company reduces its inventory balance by the cost of the five books sold and also records this amount as an expense termed **cost of goods sold**.

15 January 2006

#	Business Activity	Accounting Treatment
10	■ Sell for cash 10 books at $25 per book at an investment conference.	■ **Cash** [**A**] is increased by $250, and **revenue** [**R**] is increased by $250. Additionally, **inventory** [**A**] is decreased by $200, and **cost of goods sold** [**X**] is increased by $200.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Similar to the previous sale transaction, both the $250 sales proceeds and the $200 cost of the goods sold must be recorded. In contrast with the previous sale, however, the sales proceeds are received in cash. Subtotals from Exhibit 6 can once again be used to prepare a preliminary income statement and balance sheet to evaluate the business to date:

Investment Advisers, Ltd. Income Statement For the Period 1 January through 15 January 2006		
Total revenue		$375
Expenses		
Cost of goods sold	300	
Advertising	600	
Total expenses		900
Net income (loss)		$(525)

Investment Advisers, Ltd. Balance Sheet As of 15 January 2006	
Assets	
Cash	$53,850

(continued)

Accounts receivable	125
Investments	100,000
Inventory	9,700
Prepaid rent	1,000
Deposits	2,000
Office equipment	6,000
Total assets	$172,675
Liabilities and owners' equity	
Liabilities	
Accounts payable	$10,000
Unearned fees	1,200
Bank debt	12,000
Total liabilities	23,200
Equity	
Contributed capital	150,000
Retained earnings	(525)
Total equity	149,475
Total liabilities and owners' equity	$172,675

An income statement covering Transactions 1–10 would reflect revenue to date of $375 for the sale of books minus the $300 cost of those books and minus the $600 advertising expense. The net loss is $525, which is shown in the income statement as $(525) using the accounting convention that indicates a negative number using parentheses. This net loss is also reflected on the balance sheet in retained earnings. The amount in retained earnings at this point equals the net loss of $525 because retained earnings had $0 beginning balance and no dividends have been distributed. The balance sheet reflects total assets of $172,675 and claims on the assets of $23,200 in liabilities and $149,475 owners' equity. Within assets, the inventory balance represents the cost of the 485 remaining books (a total of 15 have been sold) at $20 each.

Transactions 1–10 occurred throughout the month and involved cash, accounts receivable, or accounts payable; accordingly, these transactions clearly required an entry into the accounting system. The other transactions, items 11–13, have also occurred and need to be reflected in the financial statements, but these transactions may not be so obvious. In order to prepare complete financial statements at the end of a reporting period, an entity needs to review its operations to determine whether any accruals or other adjustments are required. A more complete discussion of accruals and adjustments is set forth in the next section, but generally speaking, such entries serve to allocate revenue and expense items into the correct accounting period. In practice, companies may also make adjustments to correct erroneous entries or to update inventory balances to reflect a physical count.

In this illustration, adjustments are needed for a number of transactions in order to allocate amounts across accounting periods. The accounting treatment for these transactions is shown in Exhibit 7. Transactions are numbered sequentially, and an "a" is added to a transaction number to denote an adjustment relating to a previous transaction. Exhibit 8 presents the completed spreadsheet reflecting these additional entries in the accounting system.

Exhibit 7 Investment Advisers, Ltd. Accruals and Other Adjusting Entries on 31 January 2006

#	Business Activity	Accounting Treatment
11	■ Hire a part-time clerk. The clerk is hired through an agency that also handles all payroll taxes. The company is to pay $15 per hour to the agency. The clerk works six hours prior to 31 January, but no cash will be paid until February.	■ The company owes $90 for wages at month end. Under accrual accounting, expenses are recorded when incurred, not when paid. ■ **Accrued wages** [L] is increased by $90, and **payroll expense** [X] is increased by $90. The accrued wage liability will be eliminated when the wages are paid.
12	■ Mail out the first month's newsletter to customer. This subscription had been sold on 3 January.	■ One month (or 1/12) of the $1,200 subscription has been satisfied, so $100 can be recognized as revenue. ■ **Unearned fees** [L] is decreased by $100, and **fee revenue** [R] is increased by $100.
13	■ Review of the investment portfolio shows that $100 of interest income was earned and the market value of the portfolio has increased by $2,000. The balance in the investment account is now $102,100. The securities are classified as "trading" securities.	■ **Interest income** [R] is increased by $100, and the **investments** account [A] is increased by $100. ■ The $2,000 increase in the value of the portfolio represents unrealized gains that are part of income for traded securities. The **investments** account [A] is increased by $2,000, and **unrealized gains** [R] is increased by $2,000.
3a	■ In item 3, $3,000 was paid to the landlord for office/warehouse, including a $2,000 refundable deposit and $1,000 for the first month's rent. ■ Now, the first month has ended, so this rent has become a cost of doing business.	■ To reflect the full amount of the first month's rent as a cost of doing business, **prepaid rent** [A] is decreased by $1,000, and **rent expense** [X] is increased by $1,000.
4a	■ In item 4, office equipment was purchased for $6,000 in cash. The equipment has an estimated life of two years with no salvage value. ■ Now, one month (or 1/24) of the useful life of the equipment has ended, so a portion of the equipment cost has become a cost of doing business.	■ A portion (1/24) of the total $6,000 cost of the office equipment is allocated to the current period's cost of doing business. ■ **Depreciation expense** [X] is increased by $250, and **accumulated depreciation** [A] (a contra asset account) is increased by $250. ■ Accumulated depreciation is a contra asset account to office equipment.
8a	■ The company borrowed $12,000 from a bank on 15 January, with interest payable annually at 10 percent and the principal due in two years. ■ Now, one-half of one month has passed since the borrowing.	■ One-half of one month of interest expense has become a cost of doing business. $12,000 × 10% = $1,200 of annual interest, equivalent to $100 per month or $50 for one-half month. ■ **Interest expense** [X] is increased by $50, and **interest payable** [L] is increased by $50.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).
Notes: Items 11–13 are repeated from Exhibit 5. Items 3a, 4a, and 8a reflect adjustments relating to items 3, 4, and 8 from Exhibit 5.

A final income statement and balance sheet can now be prepared reflecting all transactions and adjustments.

Investment Advisers, Ltd. Income Statement For the Period 1 January through 31 January 2006	
Revenues	
Fee revenue	$100
Book sales	375
Investment income	2,100

(continued)

Exhibit 8 Accounting System for Investment Advisers, Ltd.

	Assets =			Liabilities		+		Owners' Equity		
#	Cash	Other Assets	Account	Amount	Account	Contributed Capital	Beginning Retained Earnings	Revenue	Expense (Enter as Negative)	Dividends (Enter as Negative)
Beg. Balance	0	0		0		0	0	0	0	0
1 Capitalize	150,000					150,000				
2 Investments	(100,000)	100,000	Investments							
3 Pay landlord	(3,000)	1,000	Prepaid rent							
		2,000	Rent deposit							
4 Buy equipment	(6,000)	6,000	Office equipment							
5 Sell subscript.	1,200			1,200	Unearned fees					
6 Buy Books		10,000	Inventory	10,000	Accounts payable					
7 Advertise	(600)								(600)	
8 Borrow	12,000			12,000	Bank debt					
9 Sell books on account		(100)	Inventory					125	(100)	
		125	Accounts receivable							
10 Cash sale	250	(200)	Inventory					250	(200)	
11 Accrue wages				90	Accrued wages				(90)	
12 Earn subscription fees				(100)	Unearned fees			100		
13 Investment income		100	Investments					100		
		2,000	Investments					2,000		
3a Rent expense		(1,000)	Prepaid rent						(1,000)	
4a Depreciate equipment		(250)	Accumulated depreciation (equipment)						(250)	
8a Accrue interest				50	Interest payable				(50)	
Subtotal	**53,850**	**119,675**		**23,240**		**150,000**		**2,575**	**(2,290)**	

Investment Advisers, Ltd. Income Statement For the Period 1 January through 31 January 2006	
Total revenues	$2,575
Expenses	
Cost of goods sold	$300
Advertising	600
Wage	90
Rent	1,000
Depreciation	250
Interest	50
Total expenses	2,290
Net income (loss)	$285

Investment Advisers, Ltd. Balance Sheet As of 31 January 2006	
Assets	
Cash	$53,850
Accounts receivable	125
Investments	102,100
Inventory	9,700
Prepaid rent	0
Office equipment, net	5,750
Deposits	2,000
Total assets	$173,525
Liabilities and owners' equity	
Liabilities	
Accounts payable	$10,000
Accrued wages	90
Interest payable	50
Unearned fees	1,100
Bank debt	12,000
Total liabilities	23,240
Equity	
Contributed capital	150,000
Retained earnings	285
Total equity	150,285
Total liabilities and owners' equity	$173,525

From the income statement, we can determine that the business was profitable for the month. The business earned $285 after expenses. The balance sheet presents the financial position. The company has assets of $173,525, and claims against those assets included liabilities of $23,240 and an owners' claim of $150,285. The owners' claim reflects their initial investment plus reinvested earnings. These statements are explored further in the next section.

4.3 Financial Statements

The spreadsheet in Exhibit 8 is an organized presentation of the company's transactions and can help in preparing the income statement and balance sheet presented above. Exhibit 9 presents all financial statements and demonstrates their relationships. Note that the data for the income statement come from the revenue and expense columns of the spreadsheet (which include gains and losses). The net income of $285 (revenue of $2,575 minus expenses of $2,290) was retained in the business rather than distributed to the owners as dividends. The net income, therefore, becomes part of ending retained earnings on the balance sheet. The detail of retained earnings is shown in the statement of owners' equity.

The balance sheet presents the financial position of the company using the assets, liabilities, and equity accounts from the accounting system spreadsheet. The statement of cash flows summarizes the data from the cash column of the accounting system spreadsheet to enable the owners and others to assess the sources and uses of cash. These sources and uses of cash are categorized according to group of business activity: operating, investing, or financing. The format of the statement of cash flows presented here is known as the **direct format**, which refers to the operating cash section appearing simply as operating cash receipts less operating cash disbursements. An alternative format for the operating cash section, which begins with net income and shows adjustments to derive operating cash flow, is known as the **indirect format**. The alternative formats and detailed rules are discussed in the reading on understanding the statement of cash flows.

Exhibit 9 Investment Advisers, Ltd., Financial Statements

Investment Advisers, Ltd.
Balance Sheet
As of

	12/31/2005	1/31/2006
Assets		
Cash	150,000	53,850
Accounts receivable	0	125
Investments	0	102,100
Inventory		9,700
Office equipment, net		5,750
Deposits		2,000
Total assets	150,000	173,525
Liabilities		
Accounts payable	0	10,000
Accrued expenses		140
Unearned fees		1,100
Bank debt		12,000
Total liabilities		23,240
Owners' equity		
Contributed capital	150,000	150,000
Retained earnings	0	285
Total equity	150,000	150,285
Total liabilities and equity	150,000	173,525

Investment Advisers, Ltd.
Income Statement
For the Month Ended 1/31/2006

Fee revenue	100
Book sales revenue	375
Investment income	2,100
Total revenue	2,575
Cost of goods sold	300
Other expense	1,990
Total expense	2,290
Net income (loss)	285

Investment Advisers, Ltd.
Statement of Cash Flows
For the Month Ended 1/31/2006

Cash received from customers	1,450
Cash paid to landlord	(3,000)
Cash paid for advertising	(600)
Investments in trading securities	(100,000)
Operating cash flows	(102,150)
Capital expenditures	(6,000)
Investing cash flows	(6,000)
Borrowing	12,000
Financing cash flows	12,000
Net decrease in cash	(96,150)
Cash at 12/31/05	150,000
Cash at 1/31/06	53,850

Investment Advisers, Ltd.
Statement of Owners' Equity
31 January 2006

	Contributed Capital	Retained Earnings	Total
Balance at 12/31/05	150,000	0	150,000
Issuance of stock			
Net income (loss)		285	285
Distributions			
Balance at 1/31/06	150,000	285	150,285

Financial statements use the financial data reported in the accounting system and present this data in a more meaningful manner. Each statement reports on critical areas. Specifically, a review of the financial statements for the IAL illustration provides the following information:

- **Balance Sheet**. This statement provides information about a company's financial position at a point in time. It shows an entity's assets, liabilities, and owners' equity at a particular date. Two years are usually presented so that

comparisons can be made. Less significant accounts can be grouped into a single line item. One observation from the IAL illustration is that although total assets have increased significantly (about 16 percent), equity has increased less than 0.2 percent—most of the increase in total assets is due to the increase in liabilities.

- **Income Statement**. This statement provides information about a company's profitability over a period of time. It shows the amount of revenue, expense, and resulting net income or loss for a company during a period of time. Again, less significant accounts can be grouped into a single line item—in this illustration, expenses other than cost of goods sold are grouped into a single line item. The statement shows that IAL has three sources of revenue and made a small profit in its first month of operations. Significantly, most of the revenue came from investments rather than subscriptions or book sales.
- **Statement of Cash Flows**. This statement provides information about a company's cash flows over a period of time. It shows a company's cash inflows (receipts) and outflows (payments) during the period. These flows are categorized according to the three groups of business activities: operating, financing, and investing. In the illustration, IAL reported a large negative cash flow from operations ($102,150), primarily because its trading activities involved the purchase of a portfolio of securities but no sales were made from the portfolio. (Note that the purchase of investments for IAL appears in its operating section because the company is in the business of trading securities. In contrast, for a nontrading company, investment activity would be shown as investing cash flows rather than operating cash flows.) IAL's negative operating and investing cash flows were funded by $12,000 bank borrowing and a $96,150 reduction in the cash balance.
- **Statement of Owners' Equity**. This statement provides information about the composition and changes in owners' equity during a period of time. In this illustration, the only change in equity resulted from the net income of $285. A **Statement of Retained Earnings** (not shown) would report the changes in a company's retained earnings during a period of time.

These statements again illustrate the interrelationships among financial statements. On the balance sheet, we see beginning and ending amounts for assets, liabilities, and owners' equity. Owners' equity increased from $150,000 to $150,285. The statement of owners' equity presents a breakdown of this $285 change. The arrow from the statement of owners' equity to the owners' equity section of the balance sheet explains that section of the balance sheet. In the IAL illustration, the entire $285 change resulted from an increase in retained earnings. In turn, the increase in retained earnings resulted from $285 net income. The income statement presents a breakdown of the revenues and expenses resulting in this $285. The arrow from the income statement to the net income figure in the owners' equity section explains how reported net income came about.

Also on the balance sheet, we see that cash decreased from $150,000 at the beginning of the month to $53,850 at the end of the month. The statement of cash flows provides information on the increases and decreases in cash by group of business activity. The arrow from the statement of cash flows to the ending cash figure shows that the statement of cash flows explains in detail the ending cash amount.

In summary, the balance sheet provides information at a point in time (financial position), whereas the other statements provide useful information regarding the activity during a period of time (profitability, cash flow, and changes in owners' equity).

ACCRUALS AND VALUATION ADJUSTMENTS

5

In a simple business model such as the investment company discussed in the illustration above, many transactions are handled in cash and settled in a relatively short time frame. Furthermore, assets and liabilities have a fixed and determinable value. Translating business transactions into the accounting system is fairly easy. Difficulty usually arises when a cash receipt or disbursement occurs in a different period than the related revenue or expense, or when the reportable values of assets vary. This section will address the accounting treatment for these situations—namely, accruals and valuation adjustments.

5.1 Accruals

Accrual accounting requires that revenue be recorded when earned and that expenses be recorded when incurred, irrespective of when the related cash movements occur. The purpose of accrual entries is to report revenue and expense in the proper accounting period. Because accrual entries occur due to timing differences between cash movements and accounting recognition of revenue or expense, it follows that there are only a few possibilities. First, cash movement and accounting recognition can occur at the same time, in which case there is no need for accruals. Second, cash movement may occur before or after accounting recognition, in which case accruals are required. The possible situations requiring accrual entries are summarized into four types of accrual entries shown in Exhibit 10 and discussed below. Each type of accrual involves an originating entry and at least one adjusting entry at a later date or dates.

Exhibit 10 Accruals

	Cash Movement prior to Accounting Recognition	Cash Movement in the Same Period as Accounting Recognition	Cash Movement after Accounting Recognition
Revenue	UNEARNED (DEFERRED) REVENUE ■ **Originating entry**–record cash receipt and establish a liability (such as unearned revenue) ■ **Adjusting entry**–reduce the liability while recording revenue	Settled transaction–no accrual entry needed	UNBILLED (ACCRUED) REVENUE ■ **Originating entry**–record revenue and establish an asset (such as unbilled revenue) ■ **Adjusting entry**–When billing occurs, reduce unbilled revenue and increase accounts receivable. When cash is collected, eliminate the receivable.
Expense	PREPAID EXPENSE ■ **Originating entry**–record cash payment and establish an asset (such as prepaid expense) ■ **Adjusting entry**–reduce the asset while recording expense		ACCRUED EXPENSES ■ **Originating entry**–establish a liability (such as accrued expenses) and record an expense ■ **Adjusting entry**–reduce the liability as cash is paid

Unearned revenue (or **deferred revenue**) arises when a company receives cash prior to earning the revenue. In the IAL illustration, in Transaction 5, the company received $1,200 for a 12-month subscription to a monthly newsletter. At the time the cash was received, the company had an obligation to deliver 12 newsletters and thus had not yet earned the revenue. Each month, as a newsletter is delivered, this obligation will decrease by 1/12th (i.e., $100). And at the same time, $100 of revenue will be earned. The accounting treatment involves an originating entry (the initial recording of the cash received and the corresponding liability to deliver newsletters) and, subsequently, 12 future adjusting entries, the first one of which was illustrated as Transaction 12. Each adjusting entry reduces the liability and records revenue.

In practice, a large amount of unearned revenue may cause some concern about a company's ability to deliver on this future commitment. Conversely, a positive aspect is that increases in unearned revenue are an indicator of future revenues. For example, a large liability on the balance sheet of an airline relates to cash received for future airline travel. Revenue will be recognized as the travel occurs, so an increase in this liability is an indicator of future increases in revenue.

Unbilled revenue (or **accrued revenue**) arises when a company earns revenue prior to receiving cash but has not yet recognized the revenue at the end of an accounting period. In such cases, the accounting treatment involves an originating entry to record the revenue earned through the end of the accounting period and a related receivable reflecting amounts due from customers. When the company receives payment (or if goods are returned), an adjusting entry eliminates the receivable.

Accrued revenue specifically relates to end-of-period accruals; however, the concept is similar to any sale involving deferred receipt of cash. In the IAL illustration, in Transaction 9, the company sold books on account, so the revenue was recognized prior to cash receipt. The accounting treatment involved an entry to record the revenue and the associated receivable. In the future, when the company receives payment, an adjusting entry (not shown) would eliminate the receivable. In practice, it is important to understand the quality of a company's receivables (i.e., the likelihood of collection).

Prepaid expense arises when a company makes a cash payment prior to recognizing an expense. In the illustration, in Transaction 3, the company prepaid one month's rent. The accounting treatment involves an originating entry to record the payment of cash and the prepaid asset reflecting future benefits, and a subsequent adjusting entry to record the expense and eliminate the prepaid asset. (See the boxes showing the accounting treatment of Transaction 3, which refers to the originating entry, and Transaction 3a, which refers to the adjusting entry.) In other words, prepaid expenses are assets that will be subsequently expensed. In practice, particularly in a valuation, one consideration is that prepaid assets typically have future value only as future operations transpire, unless they are refundable.

Accrued expenses arise when a company incurs expenses that have not yet been paid as of the end of an accounting period. Accrued expenses result in liabilities that usually require future cash payments. In the IAL illustration, the company had incurred wage expenses at month end, but the payment would not be made until after the end of the month (Transaction 11). To reflect the company's position at the end of the month, the accounting treatment involved an originating entry to record wage expense and the corresponding liability for wages payable, and a future adjusting entry to eliminate the liability when cash is paid (not shown because wages will be paid only in February). Similarly, the IAL illustration included interest accrual on the company's bank borrowing. (See the boxes showing the accounting treatment of Transaction 8, where Transaction 8 refers to the originating entry, and Transaction 8a, which refers to the adjusting entry.)

As with accrued revenues, accrued expenses specifically relate to end-of-period accruals. Accounts payable are similar to accrued expenses in that they involve a transaction that occurs now but the cash payment is made later. Accounts payable is also a

liability but often relates to the receipt of inventory (or perhaps services) as opposed to recording an immediate expense. Accounts payable should be listed separately from other accrued expenses on the balance sheet because of their different nature.

Overall, in practice, complex businesses require additional accruals that are theoretically similar to the four categories of accruals discussed above but which require considerably more judgment. For example, there may be significant lags between a transaction and cash settlement. In such cases, accruals can span many accounting periods (even 10–20 years!), and it is not always clear when revenue has been earned or an expense has been incurred. Considerable judgment is required to determine how to allocate/distribute amounts across periods. An example of such a complex accrual would be the estimated annual revenue for a contractor on a long-term construction project, such as building a nuclear power plant. In general, however, accruals fall under the four general types and follow essentially the same pattern of originating and adjusting entries as the basic accruals described.

5.2 Valuation Adjustments

In contrast to accrual entries that allocate revenue and expenses into the appropriate accounting periods, valuation adjustments are made to a company's assets or liabilities—only where required by accounting standards—so that the accounting records reflect the current market value rather than the historical cost. In this discussion, we focus on valuation adjustments to assets. For example, in the IAL illustration, Transaction 13 adjusted the value of the company's investment portfolio to its current market value. The income statement reflects the $2,100 increase (including interest), and the ending balance sheets report the investment portfolio at its current market value of $102,100. In contrast, the equipment in the IAL illustration was not reported at its current market value and no valuation adjustment was required.

As this illustration demonstrates, accounting regulations do not require all types of assets to be reported at their current market value. Some assets (e.g., trading securities) are shown on the balance sheet at their current market value, and changes in that market value are reported in the income statement. Some assets are shown at their historical cost (e.g., specific classes of investment securities being held to maturity). Other assets (e.g., a particular class of investment securities) are shown on the balance sheet at their current market value, but changes in market value bypass the income statement and are recorded directly into shareholders' equity under a component referred to as "other comprehensive income." This topic will be discussed in more detail in later readings.

In summary, where valuation adjustment entries are required for assets, the basic pattern is the following for increases in assets: An asset is increased with the other side of the equation being a gain on the income statement or an increase to other comprehensive income. Conversely for decreases: An asset is decreased with the other side of the equation being a loss on the income statement or a decrease to other comprehensive income.

ACCOUNTING SYSTEMS

6

The accounting system set forth for the IAL illustration involved a very simple business, a single month of activity, and a small number of transactions. In practice, most businesses are more complicated and have many more transactions. Accordingly, actual accounting systems, although using essentially the same logic as discussed in the illustration, are both more efficient than a spreadsheet and more complex.

6.1 Flow of Information in an Accounting System

Accounting texts typically discuss accounting systems in detail because accountants need to understand each step in the process. While analysts do not need to know the same details, they should be familiar with the flow of information through a financial reporting system. This flow and the key related documents are described in Exhibit 11.

Exhibit 11 Accounting System Flow and Related Documents

Journal entries and adjusting entries	A journal is a document or computer file in which business transactions are recorded in the order in which they occur (chronological order). The general journal is the collection of all business transactions in an accounting system sorted by date. All accounting systems have a general journal to record all transactions. Some accounting systems also include special journals. For example, there may be one journal for recording sales transactions and another for recording inventory purchases. Journal entries—recorded in journals—are dated, show the accounts affected, and the amounts. If necessary, the entry will include an explanation of the transaction and documented authorization to record the entry. As the initial step in converting business transactions into financial information, the journal entry is useful for obtaining detailed information regarding a particular transaction. Adjusting journal entries, a subset of journal entries, are typically made at the end of an accounting period to record items such as accruals that are not yet reflected in the accounting system.
	↓
General ledger and T- accounts	A ledger is a document or computer file that shows all business transactions by account. Note that the general ledger, the core of every accounting system, contains all of the same entries as that posted to the general journal—the only difference is that the data are sorted by date in a journal and by account in the ledger. The general ledger is useful for reviewing all of the activity related to a single account. T-accounts, explained in Appendix 23, are representations of ledger accounts and are frequently used to describe or analyze accounting transactions.
	↓
Trial balance and adjusted trial balance	A trial balance is a document that lists account balances at a particular point in time. Trial balances are typically prepared at the end of an accounting period as a first step in producing financial statements. A key difference between a trial balance and a ledger is that the trial balance shows only total ending balances. An initial trial balance assists in the identification of any adjusting entries that may be required. Once these adjusting entries are made, an adjusted trial balance can be prepared.
	↓
Financial statements	The financial statements, a final product of the accounting system, are prepared based on the account totals from an adjusted trial balance.

6.2 Debits and Credits

Reviewing the example of IAL, it is clear that the accounting treatment of every transaction involved at least two accounts and the transaction either increased or decreased the value of any affected account. Traditionally, accounting systems have used the terms **debit** and **credit** to describe changes in an account resulting from the accounting processing of a transaction. The correct usage of "debit" and "credit" in an accounting context differs from how these terms are used in everyday language.[6] The

6 In accounting, debits record increases of asset and expense accounts or decreases in liability and owners' equity accounts. Credits record increases in liability, owners' equity, and revenue accounts or decreases in asset accounts. Appendix 23 provides more details.

accounting definitions of debit and credit ensure that, in processing a transaction, the sum of the debits equals the sum of the credits, which is consistent with the accounting equation always remaining in balance.

Although mastering the usage of the terms "debit" and "credit" is essential for an accountant, an analyst can still understand financial reporting mechanics without speaking in terms of debits and credits. In general, this text avoids the use of debit/credit presentation; however, for reference, Appendix 23 presents the IAL illustration in a debit and credit system.

The following section broadly describes some considerations for using financial statements in security analysis.

USING FINANCIAL STATEMENTS IN SECURITY ANALYSIS

7

Financial statements serve as a foundation for credit and equity analysis, including security valuation. Analysts may need to make adjustments to reflect items not reported in the statements (certain assets/liabilities and future earnings). Analysts may also need to assess the reasonableness of management judgment (e.g., in accruals and valuations). Because analysts typically will not have access to the accounting system or individual entries, they will need to infer what transactions were recorded by examining the financial statements.

7.1 The Use of Judgment in Accounts and Entries

Quite apart from deliberate misrepresentations, even efforts to faithfully represent the economic performance and position of a company require judgments and estimates. Financial reporting systems need to accommodate complex business models by recording accruals and changes in valuations of balance sheet accounts. Accruals and valuation entries require considerable judgment and thus create many of the limitations of the accounting model. Judgments could prove wrong or, worse, be used for deliberate earnings manipulation. An important first step in analyzing financial statements is identifying the types of accruals and valuation entries in an entity's financial statements. Most of these items will be noted in the critical accounting policies/estimates section of management's discussion and analysis (MD&A) and in the significant accounting policies footnote, both found in the annual report. Analysts should use this disclosure to identify the key accruals and valuations for a company. The analyst needs to be aware, as Example 4 shows, that the manipulation of earnings and assets can take place within the context of satisfying the mechanical rules governing the recording of transactions.

EXAMPLE 4

The Manipulation of Accounting Earnings

As discussed in this reading, the accounting equation can be expressed as Assets = Liabilities + Contributed capital + Ending retained earnings (Equation 5a). Although the equation must remain in balance with each transaction, management can improperly record a transaction to achieve a desired result. For example, when a company spends cash and records an expense, assets are reduced on the left side of the equation and expenses are recorded, which lowers retained earnings on the right side. The balance is maintained. If, however, a

company spent cash but did not want to record an expense in order to achieve higher net income, the company could manipulate the system by reducing cash and increasing another asset. The equation would remain in balance and the right-hand side of the equation would not be affected at all. This was one of the techniques used by managers at WorldCom to manipulate financial reports, as summarized in a US Securities and Exchange Commission complaint against the company (emphasis added):

> In general, WorldCom manipulated its financial results in two ways. First, WorldCom reduced its operating expenses by improperly releasing certain reserves held against operating expenses. Second, **WorldCom improperly reduced its operating expenses by recharacterizing certain expenses as capital assets**. Neither practice was in conformity with generally accepted accounting principles ("GAAP"). Neither practice was disclosed to WorldCom's investors, despite the fact that both practices constituted changes from WorldCom's previous accounting practices. Both practices falsely reduced WorldCom's expenses and, accordingly, had the effect of artificially inflating the income WorldCom reported to the public in its financial statements from 1999 through the first quarter of 2002.[7]

In 2005, the former CEO of WorldCom was sentenced to 25 years in prison for his role in the fraud.[8] The analyst should be aware of the possibility of manipulation of earnings and be on the lookout for large increases in existing assets, new unusual assets, and unexplained changes in financial ratios.

7.2 Misrepresentations

It is rare in this age of computers that the mechanics of an accounting system do not work. Most computer accounting systems will not allow a company to make one-sided entries. It is important to note, however, that just because the mechanics work does not necessarily mean that the judgments underlying the financial statements are correct. An unscrupulous accountant could structure entries to achieve a desired result. For example, if a manager wanted to record fictitious revenue, a fictitious asset (a receivable) could be created to keep the accounting equation in balance. If the manager paid for something but did not want to record an expense, the transaction could be recorded in a prepaid asset account. If cash is received but the manager does not want to record revenue, a liability could be created. Understanding that there has to be another side to every entry is key in detecting inappropriate accounting because—usually in the course of "fixing" one account—there will be another account with a balance that does not make sense. In the case of recording fictitious revenue, there is likely to be a growing receivable whose collectibility is in doubt. Ratio analysis, which is discussed further in later readings, can assist in detecting suspect amounts in these accounts. Furthermore, the accounting equation can be used to detect likely accounts where aggressive or even fraudulent accounting may have occurred.

7 SEC vs. WorldCom, 5 November 2002: www.sec.gov/litigation/complaints/comp17829.htm.
8 "Ebbers Is Sentenced to 25 Years For $11 Billion WorldCom Fraud," *Wall Street Journal*, 14 July 2005, A1.

SUMMARY

The accounting process is a key component of financial reporting. The mechanics of this process convert business transactions into records necessary to create periodic reports on a company. An understanding of these mechanics is useful in evaluating financial statements for credit and equity analysis purposes and in forecasting future financial statements. Key concepts are as follows:

- Business activities can be classified into three groups: operating activities, investing activities, and financing activities.
- Companies classify transactions into common accounts that are components of the five financial statement elements: assets, liabilities, equity, revenue, and expense.
- The core of the accounting process is the basic accounting equation: Assets = Liabilities + Owners' equity.
- The expanded accounting equation is Assets = Liabilities + Contributed capital + Beginning retained earnings + Revenue − Expenses − Dividends.
- Business transactions are recorded in an accounting system that is based on the basic and expanded accounting equations.
- The accounting system tracks and summarizes data used to create financial statements: the balance sheet, income statement, statement of cash flows, and statement of owners' equity. The statement of retained earnings is a component of the statement of owners' equity.
- Accruals are a necessary part of the accounting process and are designed to allocate activity to the proper period for financial reporting purposes.
- The results of the accounting process are financial reports that are used by managers, investors, creditors, analysts, and others in making business decisions.
- An analyst uses the financial statements to make judgments on the financial health of a company.
- Company management can manipulate financial statements, and a perceptive analyst can use his or her understanding of financial statements to detect misrepresentations.

OPTIONAL SEGMENT

APPENDIX 23: A DEBIT/CREDIT ACCOUNTING SYSTEM

The main section of this reading presented a basic accounting system represented as a spreadsheet. An alternative system that underlies most manual and electronic accounting systems uses debits and credits. Both a spreadsheet and a debit/credit system are based on the basic accounting equation:

Assets = Liabilities + Owners' equity

Early generations of accountants desired a system for recording transactions that maintained the balance of the accounting equation and avoided the use of negative numbers (which could lead to errors in recording). The system can be illustrated with T-accounts for every account involved in recording transactions. The T-account is so named for its shape:

T-Account

Debit	Credit

The left-hand side of the T-account is called a "debit," and the right-hand side is termed a "credit." The names should not be construed as denoting value. A debit is not better than a credit and vice versa. Debit simply means the left side of the T-account, and credit simply means the right side. Traditionally, debit is abbreviated as "DR," whereas credit is abbreviated "CR." The T-account is also related to the balance sheet and accounting equation as follows:

Balance Sheet

Assets	Liabilities
	Owners' Equity

Assets are referred to as the left side of the balance sheet (and accounting equation) and hence are on the left side of the T-account. Assets are, therefore, recorded with a debit balance. In other words, to record an increase in an asset, an entry is made to the left-hand side of a T-account. A decrease to an asset is recorded on the right side of a T-account. Liabilities and owners' equity are referred to as the right side of the balance sheet (and accounting equation). Increases to liabilities and owners' equity are recorded on the right side of a T-account; decreases to liabilities and owners' equity are recorded on the left side.

At any point in time, the balance in an account is determined by summing all the amounts on the left side of the account, summing all the amounts on the right side of the account, and calculating the difference. If the sum of amounts on the left side of the account is greater than the sum of amounts on the right side of the account, the account has a debit balance equal to the difference. If the sum of amounts on the right side of the account is greater than the sum of amounts on the left side of the account, the account has a credit balance.

A T-account is created for each asset account, liability account, and owners' equity account. The collection of these T-accounts at the beginning of the year for a fictitious company, Investment Advisers, Ltd. (IAL), is presented in Exhibit 1. Each balance sheet T-account is termed a "permanent" or "real" account because the balance in the account carries over from year-to-year.

Exhibit 1 Balance Sheet T-Accounts for Investment Advisers, Ltd.

Cash

Accounts Receivable

Inventory

Investments

Office Equipment

Accumulated Depreciation

Deposits

Prepaid Rent

Accounts Payable

Accrued Wages

Unearned Fees

Bank Debt

Accrued Interest

Contributed Capital

Retained Earnings

T-accounts are also set up for each income statement account. These T-accounts are referred to as "temporary" or "nominal" accounts because they are transferred at the end of each fiscal year by transferring any net income or loss to the balance sheet account, Retained Earnings. Income statement T-accounts for IAL are presented in Exhibit 2.

Exhibit 2 Income Statement T-Accounts for Investment Advisers, Ltd.

Fee Revenue

Book Sales Revenue

Investment Income

Cost of Goods Sold

Advertising Expense

Rent Expense

(continued)

Exhibit 2 (Continued)

Depreciation Expense		Wage Expense		Interest Expense	

The collection of all business transactions sorted by account, real and temporary, for a company comprise the general ledger. The general ledger is the core of every accounting system, where all transactions are ultimately entered. To illustrate the use of T-accounts, we will use the transactions for IAL summarized in Exhibit 3. We will first enter each transaction into the general ledger T-accounts, then use the information to prepare financial statements.

Exhibit 3 Business Transactions for Investment Advisers, Ltd.

#	Date	Business Activity
1	31 December 2005	■ File documents with regulatory authorities to establish a separate legal entity. Initially capitalize the company through deposit of $150,000 from the three owners.
2	2 January 2006	■ Set up a $100,000 investment account and purchase a portfolio of equities and fixed-income securities.
3	2 January 2006	■ Pay $3,000 to landlord for office/warehouse. $2,000 represents a refundable deposit, and $1,000 represents the first month's rent.
4	3 January 2006	■ Purchase office equipment for $6,000. The equipment has an estimated life of two years with no salvage value.
5	3 January 2006	■ Receive $1,200 cash for a one-year subscription to the monthly newsletter.
6	10 January 2006	■ Purchase and receive 500 books at a cost of $20 per book for a total of $10,000. Invoice terms are that payment from IAL is due in 30 days. No cash changes hands. These books are intended for resale.
7	10 January 2006	■ Spend $600 on newspaper and trade magazine advertising for the month.
8	15 January 2006	■ Borrow $12,000 from a bank for working capital. Interest is payable annually at 10 percent. The principal is due in two years.
9	15 January 2006	■ Ship first order to a customer consisting of five books at $25 per book. Invoice terms are that payment is due in 30 days. No cash changes hands.
10	15 January 2006	■ Sell for cash 10 books at $25 per book at an investment conference.

Exhibit 3 (Continued)

#	Date	Business Activity
11	30 January 2006	■ Hire a part-time clerk. The clerk is hired through an agency that also handles all payroll taxes. The company is to pay $15 per hour to the agency. The clerk works six hours prior to 31 January, but no cash will be paid until February.
12	31 January 2006	■ Mail out the first month's newsletter to customer. This subscription had been sold on 3 January. See item 5.
13	31 January 2006	■ Review of the investment portfolio shows that $100 of interest income was earned and the market value of the portfolio has increased by $2,000. The balance in the investment account is now $102,100. Securities are classified as "trading" securities.

Because this is a new business, the company's general ledger T-accounts initially have a zero balance.

31 December 2005 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
1	■ File documents with regulatory authorities to establish a separate legal entity. Initially capitalize the company through deposit of $150,000 from the three owners.	■ **Cash** [A] is increased by $150,000, and **contributed capital** [E] is increased by $150,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

This transaction affects two accounts: cash and contributed capital. (Cash is an asset, and contributed capital is part of equity.) The transaction is entered into the T-accounts as shown below. The number in parenthesis references the transaction number.

Cash (Debit)	Cash (Credit)	Contributed Capital (Debit)	Contributed Capital (Credit)
150,000 (1)			150,000 (1)

Cash is an asset account, and assets are on the left-hand side of the balance sheet (and basic accounting equation); therefore, cash is increased by recording the $150,000 on the debit (left) side of the T-account. Contributed capital is an equity account, and equity accounts are on the right-hand side of the balance sheet; therefore, contributed capital is increased by recording $150,000 on the credit (right) side of the T-account. Note that the sum of the debits for this transaction equals the sum of the credits:

DR = $150,000

CR = $150,000

DR = CR

Each transaction must always maintain this equality. This ensures that the accounting system (and accounting equation) is kept in balance. At this point in time, the company has assets (resources) of $150,000, and the owners' claim on the resources equals $150,000 (their contributed capital) because there are no liabilities at this point.

Transactions are recorded in a journal, which is then "posted to" (recorded in) the general ledger. When a transaction is recorded in a journal, it takes the form:

Date	Account	DR	CR
13 Dec 2005	Cash	150,000	
	Contributed Capital		150,000

This kind of entry is referred to as a "journal entry," and it is a summary of the information that will be posted in the general ledger T-accounts.

2 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
2	■ Set up a $100,000 investment account and purchase a portfolio of equities and fixed-income securities.	■ **Investments** [A] were increased by $100,000, and **cash** [A] was decreased by $100,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

This transaction affects two accounts but only one side of the accounting equation. Cash is reduced when the investments are purchased. Another type of asset, investments, increases. The T-account entries are shown below:

Cash		Investment	
150,000 (1)	100,000 (2)	100,000 (2)	

The cash account started with a $150,000 debit balance from the previous transaction. Assets are reduced by credit entries, so the reduction in cash is recorded by entering the $100,000 on the credit (right) side of the cash T-account. The investment account is also an asset, and the increase in investments is recorded by entering $100,000 on the debit side of the investments T-account. Transaction 2 balances because Transaction 2 debits equal Transaction 2 credits.

Going forward, we will use the traditional accounting terms of debit (debiting, debited) to indicate the action of entering a number in the debit side of an account, and credit (crediting, credited) to indicate the action of entering an amount on the credit side of an account.

2 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
3	■ Pay $3,000 to landlord for office/warehouse. $2,000 represents a refundable deposit, and $1,000 represents the first month's rent.	■ **Cash** [A] was decreased by $3,000, **deposits** [A] were increased by $2,000, and **prepaid rent** [A] was increased by $1,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Cash is reduced once again by crediting the account by $3,000. On the other side of the transaction, two asset accounts increase. Deposits are increased by debiting the account for $2,000, while prepaid rent is increased by debiting that account for $1,000:

Cash		Deposits		Prepaid Rent	
150,000 (1)	100,000 (2)	2,000 (3)		1,000 (3)	
	3,000 (3)				

The sum of the debits for Transaction 3 equals the sum of the credits (i.e., $3,000).

3 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
4	■ Purchase office equipment for $6,000 in cash. The equipment has an estimated life of two years with no salvage value.	■ **Cash** [A] was decreased by $6,000, and **office equipment** [A] was increased by $6,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Cash is credited for $6,000, while office equipment is debited for $6,000. Both are asset accounts, so these entries reflect a reduction in cash and an increase in office equipment.

Cash		Office Equipment	
150,000 (1)	100,000 (2)	6,000 (4)	
	3,000 (3)		
	6,000 (4)		

3 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
5	■ Receive $1,200 cash for a one-year subscription to the monthly newsletter.	■ **Cash** [A] was increased by $1,200, and **unearned fees** [L] was increased by $1,200.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

In this transaction, the company has received cash related to the sale of subscriptions. However, the company has not yet actually earned the subscription fees because it has an obligation to deliver newsletters in the future. So, this amount is recorded as a liability called "unearned fees" (or "unearned revenue"). In the future, as the company delivers the newsletters and thus fulfills its obligation, this amount will be transferred to revenue. If they fail to deliver the newsletters, the fees will need to be returned to the customer. To record the transaction, cash is debited (increased), while a liability account, unearned fees, is credited. Liabilities are on the right-hand side of the balance sheet and are, therefore, increased by crediting the T-account.

Cash		Unearned Fees	
150,000 (1)	100,000 (2)		1,200 (5)
1,200 (5)	3,000 (3)		
	6,000 (4)		

The sum of Transaction 5 debits and credits each equal $1,200.

10 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
6	■ Purchase and receive 500 books at a cost of $20 per book for a total of $10,000. Invoice terms are that payment from IAL is due in 30 days. No cash changes hands. These books are intended for resale.	■ **Inventory** [A] is increased by $10,000, and **accounts payable** [**L**] is increased by $10,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

The company has obtained an asset, inventory, which can be sold to customers at a later date. Rather than paying cash to the supplier currently, the company has an obligation to do so in 30 days. This represents a liability ("accounts payable") to the supplier. Inventory is debited for $10,000, while the liability, accounts payable, is credited for $10,000. Note that there is no impact on the cash account.

Inventory		Accounts Payable	
10,000 (6)			10,000 (6)

10 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
7	■ Spend $600 on newspaper and trade magazine advertising for the month	■ **Cash** [A] was decreased by $600, and **advertising expense** [X] was increased by $600.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Unlike the previous expenditures, advertising is not an asset. Its future economic benefits are unclear, unlike equipment, which is expected to be useful over multiple periods. Expenditures such as advertising are recorded as an expense when they are

incurred. To record the advertising expense, cash is credited for $600, and advertising expense is debited for $600. Expenses reduce net income, and thus reduce retained earnings. Decreases in retained earnings, as with any equity account, are recorded as debits. The entries with respect to retained earnings will be presented later in this section after the income statement.

Cash		Advertising Expense	
150,000 (1)	100,000 (2)	600 (7)	
1,200 (5)	3,000 (3)		
	6,000 (4)		
	600 (7)		

15 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
8	■ Borrow $12,000 from a bank for working capital. Interest is payable annually at 10 percent. The principal is due in two years.	■ **Cash** [**A**] is increased by $12,000, and **Bank debt** [**L**] is increased by $12,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Cash is debited, and a corresponding liability is credited. Initially, no entry is made for interest that is expected to be paid on the loan. Interest will be recorded in the future as time passes and interest accrues (accumulates) on the loan.

Cash		Bank Debt	
150,000 (1)	100,000 (2)		12,000 (8)
1,200 (5)	3,000 (3)		
12,000 (8)	6,000 (4)		
	600 (7)		

The debits and credits of Transaction 8 each total $12,000.

15 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
9	■ Ship first order to a customer consisting of five books at $25 per book. Invoice terms are that payment is due in 30 days. No cash changes hands.	■ **Accounts receivable** [**A**] increased by $125, and **book sales revenue** [**R**] increased by $125. Additionally, **inventory** [**A**] decreased by $100, and **cost of goods sold** [**X**] increased by $100.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

The company has now made a sale. Sale transaction records have two parts. One part records the $125 revenue to be received from the customer, and the other part records the $100 cost of the goods that have been sold. For the first part, accounts receivable is debited (increased) for $125, and a revenue account is credited for $125.

Accounts Receivable		Book Sales Revenue	
125 (9)			125 (9)

For the second part, inventory is credited (reduced) for $100, and an expense, cost of goods sold, is debited (increased) to reflect the cost of inventory sold.

Inventory		Cost of Goods Sold	
10,000 (6)	100 (9)	100 (9)	

Note that the sum of debits and the sum of credits for Transaction 9 both equal $225. The $225 is not meaningful by itself. What is important is that the debits and credits balance.

15 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
10	■ Sell for cash 10 books at $25 per book at an investment conference.	■ **Cash** [A] is increased by $250, and **book sales revenue** [R] is increased by $250. Additionally, **inventory** [A] is decreased by $200, and **cost of goods sold** [X] is increased by $200.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Similar to the previous transaction, both the sales proceeds and cost of the goods sold must be recorded. In this case, however, the sales proceeds are received in cash. To record the sale proceeds, the entries include a debit to cash for $250 and a corresponding credit to book sales revenue for $250. To record cost of goods sold, the entries include a debit to cost of goods sold and a credit to inventory.

Cash		Book Sales Revenue	
150,000 (1)	100,000 (2)		125 (9)
1,200 (5)	3,000 (3)		250 (10)
12,000 (8)	6,000 (4)		
250 (10)	600 (7)		

Inventory		Cost of Goods Sold	
10,000 (6)	100 (9)	100 (9)	
	200 (10)	200 (10)	

Transaction 10's debits and credits are equal, maintaining the accounting system's balance.

30 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
11	■ Hire a part-time clerk. The clerk is hired through an agency that also handles all payroll taxes. The company is to pay $15 per hour to the agency. The clerk works six hours prior to 31 January, but no cash will be paid until February.	■ The company owes $90 for wages at month-end. Under accrual accounting, expenses are recorded when incurred, not when paid. ■ **Accrued wages** [L] is increased by $90, and **wage expense** [X] is increased by $90. The accrued wage liability will be eliminated when the wages are paid.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Accrued wages is a liability that is increased by crediting that account, whereas payroll is an expense account that is increased with a debit.

Accrued Wages		Wage Expense	
	90 (11)	90 (11)	

31 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
12	■ Mail out the first month's newsletter to customer. This subscription had been sold on 3 January.	■ One month (or 1/12) of the $1,200 subscription has been satisfied, and thus $100 can be recognized as revenue. ■ **Unearned fees** [L] is decreased by $100, and **fee revenue** [R] is increased by $100.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

To record the recognition of one month of the subscription fee, the account fee revenue is credited (increased) by $100, and the related liability is debited (decreased) by $100.

Fee Revenue		Unearned Fees	
	100 (12)	100 (12)	1,200 (5)

31 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
13	■ Review of the investment portfolio shows that $100 of interest income was earned and the market value of the portfolio has increased by $2,000. The balance in the investment account is now $102,100. The securities are classified as "trading" securities.	■ **Investment income** [R] is increased by $100, and the **investments** account [A] is increased by $100. ■ The $2,000 increase in the value of the portfolio represents unrealized gains that are part of income for traded securities. The **investments** account [A] is increased by $2,000, and **investment income** [R] is increased by $2,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

The investments account is an asset account that is debited (increased) for $2,100, and investment income is a revenue account that is credited (increased) by $2,100.

Investments		Investment Income	
100,000 (2)			2,100 (13)
2,100 (13)			

These entries complete the recording of the first 13 transactions. In this illustration, there are three adjustments. An adjustment must be made related to Transaction 3 to account for the fact that a month has passed and rent expense has been incurred. We refer to this as Transaction 3a. Adjustments must also be made for an estimate of the depreciation of the office equipment (Transaction 4a) and for interest that has accrued on the loan (Transaction 8a).

31 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
3a	■ In item 3, $3,000 was paid to the landlord for office/warehouse, including a $2,000 refundable deposit and $1,000 for the first month's rent. ■ Now, the first month has ended, so this rent has become a cost of doing business.	■ To reflect the full amount of the first month's rent as a cost of doing business, **prepaid rent** [A] is decreased by $1,000, and **rent expense** [X] is increased by $1,000.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Prepaid rent (an asset) is credited for $1,000 to reduce the balance, and rent expense is debited for the same amount to record the fact that the expense has now been incurred. After this entry, the balance of the prepaid rent asset account is $0.

Prepaid Rent		Rent Expense	
1,000 (3)	1,000 (3a)	1,000 (3a)	

31 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
4a	■ In item 4, office equipment was purchased for $6,000 in cash. The equipment has an estimated life of two years with no salvage value. ■ Now, one month (or 1/24) of the useful life of the equipment has ended so a portion of the equipment cost has become a cost of doing business.	■ A portion (1/24) of the total $6,000 cost of the office equipment is allocated to the current period's cost of doing business. ■ **Depreciation expense** [X] is increased by $250, and **accumulated depreciation** is increased by $250. ■ Accumulated depreciation is a contra asset account to office equipment

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Because some time has passed, accounting principles require that the estimated depreciation of the equipment be recorded. In this case, one could directly credit office equipment for $250; however, a preferred method is to credit an account called "accumulated depreciation," which is associated with the office equipment account. This accumulated depreciation account "holds" the cumulative amount of the depreciation related to the office equipment. When financial reports are prepared, a user is able to see both the original cost of the equipment as well as the accumulated depreciation. The user, therefore, has insight into the age of the asset, and perhaps how much time remains before it is likely to be replaced. Accumulated depreciation is termed a "contra" asset account and is credited for $250, while depreciation expense is debited (increased) for $250.

Accumulated Depreciation		Depreciation Expense	
	250 (4a)	250 (4a)	

31 January 2006 (excerpt from Exhibit 3)

#	Business Activity	Accounting Treatment
8a	■ The company borrowed $12,000 from a bank on 15 January, with interest payable annually at 10 percent and the principal due in two years. ■ Now, one-half of one month has passed since the borrowing.	■ One-half of one month of interest expense has become a cost of doing business. $12,000 times 10% equals $1,200 of annual interest, equivalent to $100 per month and $50 for one-half month. ■ **Interest expense** [X] is increased by $50, and **accrued interest** [L] is increased by $50.

Accounting elements: Assets (A), Liabilities (L), Equity (E), Revenue (R), and Expenses (X).

Accrued interest is a liability that is credited (increased) for $50, and interest expense is debited (increased) for $50. Accrued interest is also sometimes referred to as "interest payable."

Accrued Interest	
	50 (8a)

Interest Expense	
50 (8a)	

Exhibit 4 summarizes the general ledger T-accounts for IAL at this point in time. For accounts with multiple entries, a line is drawn and the debit and credit columns are summed and netted to determine the current balance in the account. The balance is entered below the line. These individual account totals are then summarized in a trial balance as depicted in Exhibit 5. A trial balance is a summary of the account balances at a point in time. An accountant can prepare a trial balance at any time to ensure that the system is in balance and to review current amounts in the accounts. Note that the debit and credit columns each total $176,065, confirming that the system is in balance. Any difference in the column totals would indicate an error had been made. The trial balance totals have no particular significance and are not used in preparing financial statements. These totals are simply the sum of debits and credits in the accounting system at that point in time.

Exhibit 4 General Ledger T-Accounts for Investment Advisors, Ltd.

Cash	
150,000 (1)	100,000 (2)
1,200 (5)	3,000 (3)
12,000 (8)	6,000 (4)
250 (10)	600 (7)
53,850	

Accounts Receivable	
125 (9)	

Inventory	
10,000 (6)	100 (9)
	200 (10)
9,700	

Investments	
100,000 (2)	
2,100 (13)	
102,100	

Office Equipment	
6,000 (4)	

Accumulated Depreciation	
	250 (4a)

Deposits	
2,000 (3)	

Prepaid Rent	
1,000 (3)	1,000 (3a)
0	

Accounts Payable	
	10,000 (6)

Accrued Wages	
	90 (11)

Unearned Fees	
100 (12)	1,200 (5)
	1,100

Bank Debt	
	12,000 (8)

Accrued Interest	
	50 (8a)

Contributed Capital	
	150,000 (1)

Retained Earnings	

Exhibit 4 (Continued)

Fee Revenue	
	100 (12)

Book Sales Revenue	
	125 (9)
	250 (10)
	375

Investment Income	
	2,100 (13)

Cost of Goods Sold	
100 (9)	
200 (10)	
300	

Advertising Expense	
600 (7)	

Rent Expense	
1,000 (3a)	

Depreciation Expense	
250 (4a)	

Wage Expense	
90 (11)	

Interest Expense	
50 (8a)	

Exhibit 5 Investment Advisers, Ltd., Trial Balance

	DR	CR
Cash	53,850	
Accounts receivable	125	
Inventory	9,700	
Investments	102,100	
Office equipment	6,000	
Accumulated depreciation		250
Deposits	2,000	
Prepaid rent	0	
Accounts payable		10,000
Accrued wages		90
Unearned fees		1,100
Bank debt		12,000
Accrued interest		50
Contributed capital		150,000
Retained earnings		
Fee revenue		100
Book sales revenue		375
Investment income		2,100
Cost of goods sold	300	
Advertising expense	600	
Rent expense	1,000	
Depreciation expense	250	

(continued)

Exhibit 5 (Continued)

	DR	CR
Wage expense	90	
Interest expense	50	
Total	**176,065**	**176,065**

After ensuring that the balances in the trial balance are correct (if there are errors, they are corrected and an adjusted trial balance is prepared), we prepare the financial statements. The trial balance provides the information necessary to prepare the balance sheet and the income statement. The detail in the general ledger must be reviewed to prepare the statement of cash flows and statement of owners' equity. After the income statement is prepared, the temporary accounts are closed out (i.e., taken to a zero balance) by transferring each of their balances to retained earnings. This typically occurs at year-end and is termed the "closing process." Exhibits 6 and 7 show the post-closing general ledger and trial balance, respectively.

Exhibit 6 Post-Closing General Ledger T-Accounts for Investment Advisors, Ltd.

Cash

Debit	Credit
150,000 (1)	100,000 (2)
1,200 (5)	3,000 (3)
12,000 (8)	6,000 (4)
250 (10)	600 (7)
53,850	

Accounts Receivable

Debit	Credit
125 (9)	

Inventory

Debit	Credit
10,000 (6)	100 (9)
	200 (10)
9,700	

Investments

Debit	Credit
100,000 (2)	
2,100 (13)	
102,100	

Office Equipment

Debit	Credit
6,000 (4)	

Accumulated Depreciation

Debit	Credit
	250 (4a)

Deposits

Debit	Credit
2,000 (3)	

Prepaid Rent

Debit	Credit
1,000 (3)	1,000 (3a)
0	

Accounts Payable

Debit	Credit
	10,000 (6)

Accrued Wages

Debit	Credit
	90 (11)

Unearned Fees

Debit	Credit
100 (12)	1,200 (5)
	1,100

Bank Debt

Debit	Credit
	12,000 (8)

Exhibit 6 (Continued)

Accrued Interest	
	50 (8a)

Contributed Capital	
	150,000 (1)

Retained Earnings	
	285

Fee Revenue	
	0

Book Sales Revenue	
	0

Investment Income	
	0

Cost of Goods Sold	
0	

Advertising Expense	
0	

Rent Expense	
0	

Depreciation Expense	
0	

Wage Expense	
0	

Interest Expense	
0	

Exhibit 7 Investment Advisers, Ltd., Post-Closing Trial Balance

	DR	CR
Cash	53,850	
Accounts receivable	125	
Inventory	9,700	
Investments	102,100	
Office equipment	6,000	
Accumulated depreciation		250
Deposits	2,000	
Prepaid rent	0	
Accounts payable		10,000
Accrued wages		90
Unearned fees		1,100
Bank debt		12,000
Accrued interest		50
Contributed capital		150,000
Retained earnings		285
Fee revenue		0
Book sales revenue		0
Investment income		0
Cost of goods sold	0	
Advertising expense	0	
Rent expense	0	
Depreciation expense	0	

(continued)

Exhibit 7 (Continued)

	DR	CR
Wage expense	0	
Interest expense	0	
Total	**173,775**	**173,775**

END OPTIONAL SEGMENT

Financial statements are identical whether using a spreadsheet approach or a debit/credit approach. Accordingly, the financial statements for IAL that would be prepared using the trial balances are identical to those presented in the main body of the reading as Exhibit 9.

PRACTICE PROBLEMS

1 Which of the following items would most likely be classified as an operating activity?

A Issuance of debt.

B Acquisition of a competitor.

C Sale of automobiles by an automobile dealer.

2 Which of the following items would most likely be classified as a financing activity?

A Issuance of debt.

B Payment of income taxes.

C Investments in the stock of a supplier.

3 Which of the following elements represents an economic resource?

A Asset.

B Liability.

C Owners' equity.

4 Which of the following elements represents a residual claim?

A Asset.

B Liability.

C Owners' equity.

5 An analyst has projected that a company will have assets of €2,000 at year-end and liabilities of €1,200. The analyst's projection of total owners' equity should be *closest* to:

A €800.

B €2,000.

C €3,200.

6 An analyst has collected the following information regarding a company in advance of its year-end earnings announcement (in millions):

Estimated net income	$ 200
Beginning retained earnings	$ 1,400
Estimated distributions to owners	$ 100

The analyst's estimate of ending retained earnings (in millions) should be *closest* to:

A $1,300.

B $1,500.

C $1,700.

7 An analyst has compiled the following information regarding Rubsam, Inc.

International Financial Statement Analysis, by Thomas R. Robinson, CFA, Jan Hendrik van Greuning, CFA, Elaine Henry, CFA, and Michael A. Broihahn, CFA. © 2007 CFA Institute. All rights reserved.

Liabilities at year-end	€	1,000
Contributed capital at year-end	€	500
Beginning retained earnings	€	600
Revenue during the year	€	5,000
Expenses during the year	€	4,300

There have been no distributions to owners. The analyst's *most likely* estimate of total assets at year-end should be *closest* to:

A €2,100.

B €2,300.

C €2,800.

8 A group of individuals formed a new company with an investment of $500,000. The *most likely* effect of this transaction on the company's accounting equation at the time of the formation is an increase in cash and:

A an increase in revenue.

B an increase in liabilities.

C an increase in contributed capital.

9 HVG, LLC paid $12,000 of cash to a real estate company upon signing a lease on 31 December 2005. The payment represents a $4,000 security deposit and $4,000 of rent for each of January 2006 and February 2006. Assuming that the correct accounting is to reflect both January and February rent as prepaid, the *most likely* effect on HVG's accounting equation in December 2005 is:

A no net change in assets.

B a decrease in assets of $8,000.

C a decrease in assets of $12,000.

10 TRR Enterprises sold products to customers on 30 June 2006 for a total price of €10,000. The terms of the sale are that payment is due in 30 days. The cost of the products was €8,000. The *most likely* net change in TRR's total assets on 30 June 2006 related to this transaction is:

A €0.

B €2,000.

C €10,000.

11 On 30 April 2006, Pinto Products received a cash payment of $30,000 as a deposit on production of a custom machine to be delivered in August 2006. This transaction would *most likely* result in which of the following on 30 April 2006?

A No effect on liabilities.

B A decrease in assets of $30,000.

C An increase in liabilities of $30,000.

12 Squires & Johnson, Ltd., recorded €250,000 of depreciation expense in December 2005. The *most likely* effect on the company's accounting equation is:

A no effect on assets.

B a decrease in assets of €250,000.

C an increase in liabilities of €250,000.

13 An analyst who is interested in assessing a company's financial position is *most likely* to focus on which financial statement?

A Balance sheet.

B Income statement.

C Statement of cash flows.

14 The statement of cash flows presents the flows into which three groups of business activities?

A Operating, Nonoperating, and Financing.

B Operating, Investing, and Financing.

C Operating, Nonoperating, and Investing.

15 Which of the following statements about cash received prior to the recognition of revenue in the financial statements is *most* accurate? The cash is recorded as:

A deferred revenue, an asset.

B accrued revenue, a liability.

C deferred revenue, a liability.

16 When, at the end of an accounting period, a revenue has been recognized in the financial statements but no billing has occurred and no cash has been received, the accrual is to:

A unbilled (accrued) revenue, an asset.

B deferred revenue, an asset.

C unbilled (accrued) revenue, a liability.

17 When, at the end of an accounting period, cash has been paid with respect to a future expense, the business should then record:

A an accrued expense, an asset.

B a prepaid expense, an asset.

C an accrued expense, a liability.

18 When, at the end of an accounting period, cash has not been paid with respect to an expense that has been incurred, the business should then record:

A an accrued expense, an asset.

B a prepaid expense, an asset.

C an accrued expense, a liability.

19 The collection of all business transactions sorted by account in an accounting system is referred to as:

A a trial balance.

B a general ledger.

C a general journal.

20 If a company reported fictitious revenue, it could try to cover up its fraud by:

A decreasing assets.

B increasing liabilities.

C creating a fictitious asset.

SOLUTIONS

1 C is correct. Sales of products, a primary business activity, are classified as an operating activity. Issuance of debt would be a financing activity. Acquisition of a competitor and the sale of surplus equipment would both be classified as investing activities.

2 A is correct. Issuance of debt would be classified as a financing activity. B is incorrect because payment of income taxes would be classified as an operating activity. C is incorrect because investments in common stock would be generally classified as investing activities.

3 A is correct. An asset is an economic resource of an entity that will either be converted into cash or consumed.

4 C is correct. Owners' equity is a residual claim on the resources of a business.

5 A is correct. Assets must equal liabilities plus owners' equity and, therefore, €2,000 = €1,200 + Owners' equity. Owners' equity must be €800.

6 B is correct.

Beginning retained earnings	$1,400
+ Net income	200
– Distributions to owners	(100)
= Ending retained earnings	$1,500

7 C is correct.

Assets = Liabilities + Contributed capital + Beginning retained earnings – Distributions to owners + Revenues – Expenses

Liabilities	$1,000
+ Contributed capital	500
+ Beginning retained earnings	600
– Distributions to owners	(0)
+ Revenues	5,000
– Expenses	(4,300)
= Assets	$2,800

8 C is correct. This is a contribution of capital by the owners. Assets would increase by $500,000 and contributed capital would increase by $500,000, maintaining the balance of the accounting equation.

9 A is correct. The payment of January rent represents prepaid rent (an asset), which will be adjusted at the end of January to record rent expense. Cash (an asset) decreases by $12,000. Deposits (an asset) increase by $4,000. Prepaid rent (an asset) increases by $8,000. There is no net change in assets.

10 B is correct. The sale of products without receipt of cash results in an increase in accounts receivable (an asset) of €10,000. The balance in inventory (an asset) decreases by €8,000. The net increase in assets is €2,000. This would be balanced by an increase in revenue of €10,000 and an increase in expenses (costs of goods sold) of €8,000.

11 C is correct. The receipt of cash in advance of delivering goods or services results in unearned revenue, which is a liability. The company has an obligation to deliver $30,000 in goods in the future. This balances the increase in cash (an asset) of $30,000.

12 B is correct. Depreciation is an expense and increases accumulated depreciation. Accumulated depreciation is a contra account which reduces property, plant, and equipment (an asset) by €250,000. Assets decrease by €250,000, and expenses increase by €250,000.

13 A is correct. The balance sheet shows the financial position of a company at a particular point in time. The balance sheet is also known as a "statement of financial position."

14 B is correct. The three sections of the statement of cash flows are operating, investing, and financing activities.

15 C is correct. Cash received prior to revenue recognition increases cash and deferred or unearned revenue. This is a liability until the company provides the promised goods or services.

16 A is correct. When cash is to be received after revenue has been recognized but no billing has actually occurred, an unbilled (accrued) revenue is recorded. Such accruals would usually occur when an accounting period ends prior to a company billing its customer. This type of accrual can be contrasted with a simple credit sale, which is reflected as an increase in revenue and an increase in accounts receivable. No accrual is necessary.

17 B is correct. Payment of expenses in advance is called a prepaid expense which is classified as an asset.

18 C is correct. When an expense is incurred and no cash has been paid, expenses are increased and a liability ("accrued expense") is established for the same amount.

19 B is correct. The general ledger is the collection of all business transactions sorted by account in an accounting system. The general journal is the collection of all business activities sorted by date.

20 C is correct. In order to balance the accounting equation, the company would either need to increase assets or decrease liabilities. Creating a fictitious asset would be one way of attempting to cover up the fraud.