Financial Reporting and Analysis

Study Sessions 6, 7, 8, & 9

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Study Session 6: Financial Reporting and Analysis—An Introduction

Study Session 7 introduces the sources of financial information on which an analyst can draw when making investment recommendations. This session outlines the basic principles of recording financial transactions and events and discusses the role of standard setting bodies in determining how transactions and events should be recorded.

Financial Statement Analysis: An Introduction

Cross-Reference to CFA Institute Assigned Reading #21

The **income statement** reports on the financial performance of the firm over a period of time. The elements of the income statement include revenues, expenses, gains, and losses.

- *Revenues* are inflows from delivering or producing goods, rendering services, or other activities that constitute the entity's ongoing major or central operations.
- *Expenses* are outflows from delivering or producing goods or services that constitute the entity's ongoing major or central operations.
- *Gains and losses* are increases (decreases) in equity or net assets from peripheral or incidental transactions.

The **balance sheet** reports the firm's financial position at a point in time. The balance sheet consists of three elements:

1. *Assets* are probable current and future economic benefits obtained or controlled by a particular entity as a result of past transactions or events.

2. *Liabilities* are probable future sacrifices of economic benefits. They arise from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events.

3. *Owners' equity* is the residual interest in the assets of an entity that remains after deducting its liabilities.

Transactions are measured so that the fundamental accounting equation holds:

assets = liabilities + owners' equity

The **cash flow statement** reports the company's cash receipts and outflows. These cash flows are classified as follows:

- *Operating cash flows* include the cash effects of transactions that involve the normal business of the firm.
- *Investing cash flows* are those resulting from acquisition or sale of property, plant, and equipment, of a subsidiary or segment, and purchase or sale of investments in other firms.
- *Financing cash flows* are those resulting from issuance or retirement of debt and equity securities and dividends paid to stockholders.

The **statement of changes in owners' equity** reports the amounts and sources of changes in equity investors' investment in the firm.

Financial statement notes (footnotes) include disclosures that offer further detail about the information summarized in the financial statements. Footnotes allow users to improve their assessments of the amount, timing, and uncertainty of the estimates reported in the financial statements. Footnotes:

- Provide information about accounting methods and the assumptions and estimates used by management.
- Are audited, whereas other disclosures, such as supplementary schedules, are not audited.
- Provide additional information on such items as fixed assets, inventory, income taxes, pensions, debt, contingencies and commitments, marketable securities, significant customers, sales to related parties, and export sales.
- Often contain disclosures relating to contingent losses.

Supplementary schedules contain additional information. Examples of such disclosures are:

- Operating income or sales by region or business segment.
- Reserves for an oil and gas company.
- Information about hedging activities and financial instruments.

Management's commentary, or **management's discussion and analysis** (MD&A), provides an assessment of the financial performance and condition of a company from the perspective of its management. For publicly held companies in the United States, the MD&A is required to discuss:

- Trends, significant events, and uncertainties that affect the firm.
- Effects of inflation and changing prices, if material.
- Impact of off-blance-sheet and contractual obligations.

- Accounting policies that require significant judgment by management.
- Forward-looking expenditures and divestitures.

Audit Reports

An **audit** is an independent review of an entity's financial statements. Public accountants conduct audits and examine the financial reports and supporting records. The objective of an audit is to enable the auditor to provide an opinion on the fairness and reliability of the financial reports.

The independent certified public accountant employed by the board of directors is responsible for seeing that the financial statements conform to Generally Accepted Accounting Principles (GAAP). The auditor examines the company's accounting and internal control systems, confirms assets and liabilities, and generally tries to be confident that there are no material errors in the financial statements and that they conform to applicable reporting standards. The auditor's report is an important source of information.

The **standard auditor's opinion** contains three parts, stating that:

1. Whereas the financial statements are prepared by management and are its responsibility, the auditor has performed an independent review.
2. Generally accepted auditing standards were followed, thus providing *reasonable assurance* that the financial statements contain no material errors.
3. The auditor is satisfied that the statements were prepared in accordance with GAAP and that the accounting principles chosen and estimates made are reasonable. The auditor's report must also contain additional explanation when accounting methods have not been used consistently between periods.

An *unqualified opinion* indicates that the auditor believes the statements are free from material omissions and errors. If the statements make any exceptions to GAAP, the auditor may issue a *qualified opinion* and explain these exceptions in the audit report. The auditor can issue an *adverse opinion* if the statements are not presented fairly or are materially nonconforming with GAAP, or a *disclaimer of opinion* if the auditor is unable to express an opinion.

The auditor's opinion will also contain an explanatory paragraph when a material loss is probable but the amount cannot be reasonably estimated. These "uncertainties" may relate to the *going concern assumption* (financial statements assume the firm will continue to operate), the valuation or realization of assets, or to litigation. This type of disclosure may be a signal of serious problems and call for closer examination by the analyst.

Under U.S. GAAP, the auditor must state an opinion on the company's **internal controls**, the processes by which the company ensures that it presents accurate financial statements. Internal controls are the responsibility of the firm's management. Under the Sarbanes-Oxley Act, management is required to provide a report on the company's internal control system.

An analyst should examine a company's *quarterly or semiannual reports* which typically update the major financial statements and footnotes, but are not necessarily audited.

Other Information Sources

Securities and Exchange Commission filings are available from EDGAR (Electronic Data Gathering, Analysis, and Retrieval System, *www.sec.gov*). These include Form 8-K, which a company must file to report events, such as acquisitions and disposals of major assets, or changes in its management or corporate governance. Companies' annual and quarterly financial statements are also filed with the SEC (Form 10-K and Form 10-Q respectively).

Proxy statements are issued to shareholders when there are matters that require a shareholder vote. These statements, which are also filed with the SEC and available from EDGAR, are a good source of information about the election of (and qualifications of) board members, compensation, management qualifications, and the issuance of stock options.

Corporate reports and press releases are written by management and are often viewed as public relations or sales materials. Not all of the material is independently reviewed by outside auditors. Such information can often be found on the company's Web site. Management may also provide **earnings guidance** to analysts before releasing the firm's financial statements.

An analyst should review information on the economy and the company's industry and compare the company to its competitors. This information can be acquired from sources such as trade journals, statistical reporting services, and government agencies.

The **financial statement analysis framework**[1] consists of six steps:
1. State the objective and context.
2. Gather data.
3. Process the data.
4. Analyze and interpret the data.

1 Hennie Van Greunung and Sonja Brajovic Bratanovic, *Analyzing and Managing Banking Risk: Framework for Assessing Corporate Governance and Financial Risk,* International Bank for Reconstruction and Development, April 2003, p. 300.

5. Report the conclusions or recommendations.
6. Update the analysis.

Financial Reporting Mechanics

Cross-Reference to CFA Institute Assigned Reading #22

Financial statement elements are the major classifications of assets, liabilities, owners' equity, revenues, and expenses. **Accounts** are the specific records within each element where specific transactions are entered. **Contra accounts** are used for entries that offset other accounts.

Assets are the firm's economic resources. Examples of assets include the following:

- *Cash and cash equivalents*. Risk-free securities with original maturities of 90 days or less.
- *Accounts receivable*. Accounts receivable often have an "allowance for bad debt expense" as a contra account.
- *Inventories*.
- *Financial assets* such as marketable securities.
- *Prepaid expenses*. Items that will show up on future income statements as expenses.
- *Property, plant, and equipment*. Includes a contra-asset account for accumulated depreciation.
- *Investment in affiliates* accounted for using the equity method.
- *Deferred tax assets*.
- *Intangible assets*. Economic resources of the firm that do not have a physical form, such as patents, trademarks, licenses, and goodwill.

Liabilities are claims that creditors have on the company's resources. Examples of liabilities include the following:

- Accounts payable and trade payables.
- Financial liabilities such as short-term notes payable.
- Unearned revenue. Items that will show up on future income statements as revenues.
- Income taxes payable. The taxes accrued during the past year but not yet paid.
- Long-term debt such as bonds payable.
- Deferred tax liabilities.

Owners' equity is the claim that the firm's owners have on its resources, which is the amount by which assets exceed liabilities. Owners' equity includes the following:

- *Capital*. Par value of common stock.
- *Additional paid-in capital*. Proceeds from common stock sales above par value. (Share repurchases that the company has made are represented in the contra account *Treasury stock*.)

- *Retained earnings*. Cumulative income that has not been distributed as dividends.
- *Other comprehensive income*. Changes in carrying amounts of assets and liabilities.

Revenue represents inflows of economic resources and includes the following:

- *Sales*. Revenue from the firm's day-to-day activities.
- *Gains*. Increases in assets or equity from transactions incidental to the firm's day-to-day activities.
- *Investment income* such as interest and dividend income.

Expenses are outflows of economic resources and include the following:

- *Cost of goods sold*.
- *Selling, general, and administrative expenses*. These include such expenses as advertising, salaries, rent, and utilities.
- *Depreciation* and *amortization*.
- *Tax expense*.
- *Interest expense*.
- *Losses*. Decreases in assets or equity from transactions incidental to the firm's day-to-day activities.

The Accounting Equation

The basic accounting equation (what balances in a balance sheet):

assets = liabilities + owners' equity

The expanded accounting equation shows the components of owners' equity:

assets = liabilities + contributed capital + ending retained earnings

The expanded accounting equation can also be stated as:

assets = liabilities
+ contributed capital
+ beginning retained earnings
+ revenue
– expenses
– dividends

Keeping the accounting equation in balance requires **double-entry accounting**, in which a transaction has to be recorded in at least two accounts. An increase in an asset account, for example, must be balanced by a decrease in another asset account or by an increase in a liability or owners' equity account.

Accruals and Adjustments

Revenues and expenses are not always recorded at the same time cash changes hands. The principle of **accrual accounting** requires that revenue is recorded when the firm earns it, and expenses are recorded when the firm incurs them, regardless of whether cash has actually been paid. Accruals fall into four categories:

1. *Unearned revenue:* Cash increases and a liability for the goods or services the firm must provide in the future is recorded in the same amount.
2. *Accrued revenue:* Revenue is recorded for credit sales, accounts receivable increases, and inventory decreases.
3. *Prepaid expenses:* Cash decreases and an asset (prepaid expenses) increases. The asset decreases and expenses increase when the expense is actually incurred.
4. *Accrued expenses:* The firm owes cash for expenses it has incurred but has not paid. A liability for accrued expenses, such as wages payable, increases.

With unearned revenue and prepaid expenses, cash changes hands first and the revenue or expense is recorded later. With accrued revenue and accrued expenses, the revenue or expense is recorded first. In all these cases, the effect of accrual accounting is to recognize revenues or expenses in the appropriate period.

Most assets are recorded on the financial statements at their historical cost. In some cases, however, accounting standards require balance sheet values of certain assets to reflect their current market values. Accounting entries that update these assets' values are called **valuation adjustments**. To keep the accounting equation in balance, changes in asset values are also changes in owners' equity, through gains or losses on the income statement or in other comprehensive income.

Information flows through an accounting system in four steps:

1. *Journal entries* record every transaction, showing which accounts are changed by what amounts.
2. The *general ledger* sorts the journal entries by account.
3. At the end of the accounting period, an *initial trial balance* is prepared that shows the balances in each account. If any adjusting entries are needed, they will be recorded and reflected in an *adjusted trial balance*.
4. The account balances from the adjusted trial balance are presented in the financial statements.

An analyst doesn't have access to the detailed information that flows through a company's accounting system, but only sees the financial statements. The analyst needs to understand the various accruals, adjustments, and management assumptions that went into the financial statements. These are often explained in the footnotes to the statements and in Management's Discussion and Analysis.

Because these adjustments and assumptions are to some extent at the discretion of management, the possibility exists that management may manipulate or misrepresent the company's financial performance and/or condition.

Financial Reporting Standards

Cross-Reference to CFA Institute Assigned Reading #23

Given the variety and complexity of possible transactions, and the estimates and assumptions a firm must make when presenting its performance, financial statements could potentially take any form if reporting standards didn't exist. Reporting standards ensure that the information is useful to a wide range of users, including security analysts, the firm's creditors, and current and potential investors, by making financial statements comparable to one another and narrowing the range within which management's estimates can be seen as reasonable.

Standard-setting bodies are professional organizations of accountants and auditors that establish financial reporting standards. **Regulatory authorities** are government agencies that have the legal authority to enforce compliance with financial reporting standards.

The two primary standard-setting bodies are the *Financial Accounting Standards Board* (FASB) and the *International Accounting Standards Board* (IASB). In the United States, the FASB sets forth Generally Accepted Accounting Principles (U.S. GAAP). Outside the United States, the IASB establishes International Financial Reporting Standards (IFRS). Many national standard-setting bodies, including the FASB, are working toward convergence with IFRS.

Desirable attributes of standard-setters:

- Observe high professional standards.
- Have adequate authority, resources, and competencies to accomplish its mission.
- Have clear and consistent standard-setting processes.
- Guided by a well-articulated framework.
- Operate independently while still seeking input from stakeholders.
- Should not be compromised by special interests.
- Decisions are made in the public interest.

Regulatory authorities, such as the *Securities and Exchange Commission* in the United States and the *Financial Conduct Authority* in the United Kingdom, are established by national governments to enforce accounting standards.

Most national authorities belong to the *International Organization of Securities Commissions* (IOSCO). Because of the increasing globalization of securities markets, IOSCO is seeking to attain uniform financial regulations across countries.

Barriers to Developing a Single Set of Standards

One barrier to developing one universally accepted set of accounting standards (referred to as convergence) is simply that different standard-setting bodies and the regulatory authorities of different countries disagree on what the best treatment of the item or issue is. Other barriers result from the political pressures that regulatory bodies face from business groups and others that will be affected by changes in their reporting standards.

The ideas on which the IASB bases its standards are expressed in its "Framework for the Preparation and Presentation of Financial Statements." The IASB framework details the objective of financial statements, defines the qualitative characteristics they should have, and specifies the reporting elements that are required. The framework also notes certain constraints and assumptions that are involved in financial statement preparation.

The objective of financial reporting according to the IASB framework is "to provide financial information about the reporting entity that is useful to existing and potential investors, lenders, and other creditors in making decisions about providing resources to the entity." Stated another way, the objective of financial statements is the fair presentation of a company's financial performance.

Qualitative Characteristics

The two fundamental characteristics that make financial information useful are **relevance** and **faithful representation.**[2]

- Financial statements are relevant if they contain information that can influence economic decisions or affect evaluations of past events or forecasts of future events.
- Information that is faithfully representative is complete, neutral (absence of bias), and free from error.

Four characteristics enhance relevance and faithful representation: comparability, verifiability, timeliness, and understandability.

- *Comparability*. Financial statement presentation should be consistent among firms and across time periods.

2. *Conceptual Framework for Financial Reporting (2010)*. paragraphs QC5-18.

- *Verifiability*. Independent observers, using the same methods, obtain similar results.
- *Timeliness*. Information is available to decision makers before the information is stale.
- *Understandability*. Users with basic business knowledge should be able to understand the statements.

Constraints and Assumptions

One of the constraints on financial statement preparation is the need to balance reliability, in the sense of being free of error, with the timeliness that makes the information relevant. Cost is also a constraint; the benefit that users gain from the information should be greater than the cost of presenting it. A third constraint is the fact that intangible and non-quantifiable information cannot be captured directly in financial statements.

The two primary assumptions that underlie financial statements are the accrual basis and the going concern assumption. The accrual basis requires that revenue be recognized when earned and expenses recognized when incurred, regardless of when cash is actually paid. The going concern assumption presumes that the company will continue to operate for the foreseeable future.

Required Financial Statements

The *required financial statements* are as follows:

- Balance sheet.
- Statement of comprehensive income.
- Cash flow statement.
- Statement of changes in owners' equity.
- Explanatory notes, including a summary of accounting policies.

The general **features for preparing financial statements** are stated in IAS No. 1:

- *Fair presentation,* faithfully representing the effects of the entity's transactions and events.
- *Going concern basis,* assuming that the firm will continue to exist unless its management intends to (or must) liquidate it.
- *Accrual basis* of accounting is used to prepare the financial statements other than the statement of cash flows.
- *Consistency* between periods in how items are presented and classified.
- *Materiality,* meaning the financial statements should be free of misstatements or significant omissions.
- *Aggregation* of similar items and separation of dissimilar items.
- *No offsetting* of assets against liabilities or income against expenses unless a specific standard permits or requires it.

- *Reporting frequency* must be at least annually.
- *Comparative information* for prior periods should be included unless a specific standard states otherwise.

IAS No. 1 also states that most entities should present a *classified balance sheet* showing current and noncurrent assets and liabilities and describes the minimum information that is required on the face of each financial statement and in the notes.

IFRS vs. U.S. GAAP

U.S. GAAP consists of standards issued by the FASB along with numerous other pronouncements and interpretations. Both the IASB and the FASB have frameworks for preparing and presenting financial statements. The two organizations are working toward a common framework, but the two frameworks differ in several aspects at present.

Until these frameworks converge, analysts will need to interpret financial statements that are prepared under different standards. In many cases, however, a company will present a **reconciliation statement** showing what their financial results would have been under an alternative reporting system.

Even when a unified framework emerges, special reporting standards that apply to particular industries (e.g., insurance, banking) will continue to exist.

A *coherent financial reporting framework* is one that fits together logically. Such a framework should be transparent, comprehensive, and consistent.

- *Transparency*—full disclosure and fair presentation reveal the underlying economics of the company to the financial statement user.
- *Comprehensiveness*—all types of transactions that have financial implications should be included, including new kinds that emerge.
- *Consistency*—similar transactions should be accounted for in similar ways across companies, geographic areas, and time periods.

Barriers to creating a coherent financial reporting framework include issues related to valuation, standard setting, and measurement.

- *Valuation*—The different measurement bases for valuation involve a trade-off between relevance and reliability. Bases that require little judgment, such as historical cost, tend to be more reliable, but may be less relevant than a base like fair value that requires more judgment.

- *Standard setting*—Three approaches to standard setting are a "principles-based" approach that relies on a broad framework, a "rules-based" approach that gives specific guidance about how to classify transactions, and an "objectives-oriented" approach that blends the other two approaches. IFRS is largely a principles-based approach. U.S. GAAP has traditionally been more rules-based, but FASB is moving toward an objectives-oriented approach.
- *Measurement*—Another trade-off in financial reporting is between properly valuing the elements at one point in time (as on the balance sheet) and properly valuing the changes between points in time (as on the income statement). An "asset/liability" approach, which standard setters have largely used, focuses on balance sheet valuation. A "revenue/expense" approach would tend to focus on the income statement.

As financial reporting standards continue to evolve, analysts need to monitor how these developments will affect the financial statements they use. An analyst should be aware of new products and innovations in the financial markets that generate new types of transactions. These might not fall neatly into the existing financial reporting standards.

To keep up to date on the evolving standards, an analyst can monitor professional journals and other sources, such as the IASB (*www.iasb.org*) and FASB (*www.fasb.org*) Web sites. CFA Institute produces position papers on financial reporting issues through the CFA Centre for Financial Market Integrity (*www.cfainstitute.org/cfacentre*).

An analyst should use the disclosures about financial standards in the footnotes and MD&A to evaluate what policies are discussed, whether they cover all the relevant data in the financial statements, which policies required management to make estimates, and whether the disclosures have changed since the prior period. In disclosing the likely impact of implementing recently issued accounting standards, management can discuss the impact of adopting the standard, conclude that the standard does not apply or will not affect the financial statements materially, or state that they are still evaluating the effects of the new standards.

Study Session 7: Financial Reporting and Analysis—Income Statements, Balance Sheets, and Cash Flow Statements

Understanding Income Statements

Cross-Reference to CFA Institute Assigned Reading #24

The income statement reports the revenues and expenses of the firm for a period of time. The income statement is sometimes referred to as the "statement of operations," the "statement of earnings," or the "profit and loss statement (P&L)."

The income statement equation is:

$$\text{revenues} - \text{expenses} = \text{net income}$$

Revenues are the amounts reported from the sale of goods and services in the normal course of business. **Expenses** are the amounts incurred to generate revenue, such as cost of goods sold, operating expenses, interest, and taxes. Expenses are grouped together by their nature or function.

The income statement also includes **gains and losses**, which result from incidental transactions outside the firm's normal business activities.

Presentation Formats

A firm can present its income statement using a single-step or multi-step format. In a single-step statement, all revenues are grouped together and all expenses are grouped together. A multi-step format includes subtotals such as gross profit and operating profit.

Gross profit is the amount that remains once the cost of a product or service is subtracted from revenue. Subtracting operating expenses, such as selling, general and administrative expenses, from gross profit results in another subtotal known as **operating profit** or operating income.

For *nonfinancial firms*, operating profit is the amount that remains before financing costs and income taxes are considered. Subtracting interest expense and income taxes from operating profit results in the firm's **net income**, sometimes referred to as "earnings" or the "bottom line." For *financial firms*, interest expense is usually considered an operating expense.

If a firm has a controlling interest in a subsidiary and consolidates the subsidiary's results with its own, the pro-rata share of the subsidiary's income for the portion of the subsidiary that the firm does not own is reported in the firm's income statement as **noncontrolling interest** or **minority owners' interest**.

General Principles of Revenue Recognition

Under the accrual method of accounting, revenue is recognized when earned, and expenses to produce that revenue are recognized when incurred. Accrual accounting does not necessarily coincide with the receipt or payment of cash, so firms can manipulate net income through their choices about revenue and expense recognition.

According to the International Accounting Standards Board (IASB), revenue is recognized from the sale of goods when:[3]

1. The risk and reward of ownership is transferred.
2. There is no continuing control or management over the goods sold.
3. Revenue can be reliably measured.
4. There is a probable flow of economic benefits.
5. The cost can be reliably measured.

For services rendered, revenue is recognized when:[4]

1. The amount of revenue can be reliably measured.
2. There is a probable flow of economic benefits.
3. The stage of completion can be measured.
4. The cost incurred and cost of completion can be reliably measured.

The Securities and Exchange Commission (SEC) lists four criteria to determine whether revenue should be recognized.[5]

1. There is evidence of an arrangement between the buyer and seller.
2. The product has been delivered or the service has been rendered.
3. The price is determined or determinable.
4. The seller is reasonably sure of collecting money.

Revenue is usually recognized at delivery, but revenue may be recognized before delivery occurs or after delivery takes place in some circumstances.

Long-Term Contracts

Specific revenue recognition methods are used for contracts (often related to construction projects) that extend beyond one accounting period. In certain cases involving service contracts or licensing agreements, the firm may simply recognize revenue equally over the term of the contract or agreement.

The *percentage-of-completion method* is appropriate when the outcome of the project can be reliably estimated. Revenue, expense, and profit are recognized in proportion to the total cost incurred to date, divided by the total expected cost of the project.

3. IAS No. 18, *Revenue*, paragraph 14.
4. IAS No. 18, *Revenue*, paragraph 20.
5. SEC Staff Accounting Bulletin 101.