## **Financial Statements - Introduction**

#### Introduction

Financial reporting is the method a firm uses to convey its financial performance to the market, its investors, and other stakeholders. The objective of financial reporting is to provide information on the changes in a firm's performance and financial position that can be used to make financial and operating decisions. In addition to being a management aide, analysts use this information to forecast the firm's ability to produce future earnings and as a means to assess the firm's intrinsic value. Other stakeholders such as creditors will use financial statements as a way to evaluate the economic and competitive strength.

The timing and the methodology used to record revenues and expenses may also impact the analysis and comparability of financial statements across companies. Accounting statements are prepared in most cases on the basis of these three basic premises:

1. The company will continue to operate (going-concern assumptions).

2. Revenues are reported as they are earned within the specified accounting period (revenues-recognition principle).

3. Expenses should match generated revenues within the specified accounting period (matching principle).

Basic Accounting Methods:

1. **Cash-basis accounting** - This method consists of recognizing revenue (income) and expenses when payments are made (checks issued) or cash is received (deposited in the bank).

2. Accrual accounting - This method consists of recognizing revenue in the accounting period in which it is earned (revenue is recognized when the company provides a product or service to a customer, regardless of when the company gets paid). Expenses are recorded when they are incurred instead of when they are paid.

## **Financial Statements - Financial Statement Analysis**

#### A. Financial Statement Analysis

The income statement is a statement of earnings that shows managers and investors whether the company made money over the period of time being reported. This statement details the revenues of the firm as well as the expenses incurred to achieve them, and transforms this into net income. The conclusion of the statement is to show the firm's gains or losses for the period. The balance sheet reports the company's financial position at a specific point in time. The balance sheet is made up of three parts: assets, liabilities and owners' equity. Assets detail the firm's economic resources that have been built up through the firm's operations or acquisitions. Liabilities are the current or estimated obligations of the firm. The difference between assets and liabilities is known as net assets or net worth of the firm. The net assets of the firm are also known as owners' equity, which is amount of assets that would remain once all creditors are paid. According to the accounting equation, owners' equity equals assets minus liabilities

Assets – Liabilities = Owners' Equity

The statement of cash flows reconciles the firm's net income to its reports on the company's cash inflows and outflows. It shows how changes in balance sheet accounts and income affect cash and cash equivalents. These cash receipts and payments are categorized as by operating cash flows, investing cash flows and financing cash flows

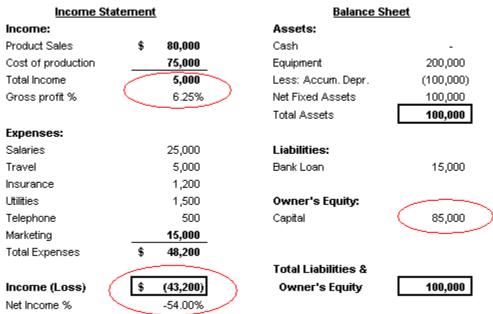
The statement of changes in owners' equity reports the sources and amounts of changes in owners' equity over the period of time being reported

Let's consider a practical example to fully understand the impact of Cash versus Accrual Accounting on XYZ Corporation's Income Statement and Balance Sheet.

#### **Cash Basis Accounting**

Taken as is, the financial statements in Figure 6.1 below indicate that XYZ Corporation is not doing well, with a net loss of \$43,200, and may not be a good investment opportunity.

#### Figure 6.1: XYZ Corporation's Financial Statements using Cash Basis Accounting



#### XYZ Corporation March 31, 2005 - June 30, 2005

Note: For simplicity the tax effect not considered.

#### **Accrual Basis Accounting**

Armed with some additional information, let's see what the income statement would look like if the accrual-basis accounting method was used.

#### Additional Information:

**A1.** June 12, 2005 - The company received a rush order for \$80,000 of wood panels. The order was delivered to the customer five days later. The customer was given 30 days to pay. (With the cash-basis method, sales are not recorded in the income statement and not recorded in accounts receivables: no cash, no record).

**A2.** June 13, 2003 - The company received \$60,000 worth of wood panels to replenish their inventory, and \$40,000 was related to the rush order. The company paid the invoice in full to take advantage of a 2% early-payment discount. (With the cash-basis method, this is recorded in full on the income statement, and there is no record of inventory on hand).

**A3.** June 1, 2005 - The company launched an advertising campaign that will run until the end of August. The total cost of the advertising campaign was \$15,000 and was paid on June 1, 2005.

# Figure 6.2: XYZ Corporation's Restated Financial Statements using Accrual Basis Accounting

Income St	tatement	Balance S	<u>heet</u>
Income:		Assets:	
Product Sales	\$ 160,000	Cash	-
Cost of production	55,000	Acount Receivable	80,000
Gross Profit	105,000	Inventory	20,000
Gross profit %	65.63%	Prepaid Expenses	10,000
		Equipment	200,000
		Less: Accum. Depr.	(100,000)
Expenses:		Net Fixed Assets	100,000
Salaries	25,000	Total Assets	210,000
Travel	5,000		
Insurance	1,200	Liabilities:	
Utilities	1,500	Bank Loan	15,000
Telephone	500		
Marketing	5,000	Owner's Equity:	
Total Expenses	\$ 38,200	Capital	(195,000)
Income (Loss) Net Income %	<b>\$ 66,800</b> 41.75%	Total Liabilities & Owner's Equity	210,000

#### XYZ Corporation March 31, 2005 - June 30, 2005

Note: tax effect not considered

#### Adjustments:

To obtain the figures in the restated financial statements in figure 6.2 above, the following adjusting entries were made:

**A1.** Product sales and Accounts receivable - Even though the client has not paid this invoice, the company still made a sale and delivered the products. As a result, sales for the accounting period should increase by \$80,000. Account s receivables (reported sales made but awaiting payment) should also increase by \$80,000.

#### Adjusting entries:

	Debit	Credit
Account Receivable	80,000	
Product Sales		80,000

**A2.** June 13, 2003 - Since the entire \$60,000 order was paid during the accounting period, the full amount was included in production costs under the cash-basis method. Only \$40,000 of the order was related to product sales during that accounting period, and the rest was stored as inventory for future product sales.

Ad	usting	entries:	
	-		

	Debit	Credit
Cost of Production	20,000	
Inventory		20,000

A3. June 1, 2005 - Marketing expenses included in the income statement totaled \$15,000 for a three-month advertising campaign because it was paid in full at initiation (cash-basis accounting). The reality is that this campaign will last for three months and will generate a benefit for the company every month. As a result, under accrual-basis accounting, the company should record in this accounting period only one-third of the cost. The remainder should be allocated to the next period and recoded as prepaid expenses on the assets side of the balance sheet.

Adjusting entries:

	Debit	Credit
Prepaid Expenses	10,000	
Marketing		10,000

Results:

Under cash-basis accounting, this company was not profitable and its balance sheet would have been weak at best. Under accrual accounting, the financials tell us a very different story.

Accrual accounting requires that revenue is recorded when the firm earns it, and that expenses are taken when the firm incurs them regardless of when the cash is actually received or paid. If cash is received first then an unearned revenue or prepaid expense account is set up and decreased as the revenue and expense is recorded over time. If cash is received after goods are delivered then the revenue and expense is recorded and a receivables or payables account is set up and decreased as the cash is paid. Most accruals fall into one of four categories:

1. Accrued Revenues: A firm will usually earn revenue before it is actually paid for its goods or services. Typically the asset account for accounts receivable is increased until the customer actually pays for goods that have been invoiced. The company records the revenue when the goods are delivered and invoiced. The accounts receivable account is decreased when the customer pays the invoice in cash.

2. Unearned Revenue: Some firms collect income before goods are provided. Subscriptions are examples of goods that are prepaid, but the revenue is not recognized until the goods are delivered. In this situation the firm increases the asset account cash and a liability account for unearned income. Unearned income is decreased as revenue is earned over time.

3. Accrued Expenses: Most firms buy inventories and supplies on account and pay for them after they have been invoiced. When the goods are delivered and equal amount is recorded in the expense account and in accounts payable. When the invoice is paid, cash and the accounts payable account are decreased.

4. **Prepaid Expenses**: Some companies pay some expenses in advance. A prepaid expanse account is increased and the actual expense is not recorded until the actual goods or services are delivered.

#### Look Out!

**Debit:** An accounting term that refers to an entry that **increases** an expense or asset account, or **decreases** an income, liability or net-worth account.

<u>Credit:</u> An accounting term that refers to an entry that **decreases** an expense or asset account, or **increases** an income, liability or net-worth account.

#### Look Out!

Going forward, all statements will use accrual-basis accounting. Please note that on the exam, candidates should assume that all financial statements use accrual-basis accounting, unless it is specified that the cash-basis accounting method is used in the question.

### **Financial Statements - Accounting Process**

#### **Accounting Process**

Accounting systems take the cash and accruals from various transactions and generate financial reports and statements. Information flows through an accounting system in four steps:

1. The first step is to create journal entries and adjusting entries. The general journal is list of each transaction, the amount, and the accounts affected in chronological order. At the end of accounting periods adjustments are made to record accruals not yet made.

2. The general ledger show the journal entries sorted by the accounts affected rather than in chronological order. This can be useful for reviewing the activity in a specific account.

3. At the end of the accounting period an initial trial balance is prepared lists the ending balance of each account on a given date. If needed, adjusting entries are recorded in an adjusted trial balance.

4. The financial statements are prepared as a final product of the system, based on the totals from an adjusted trial balance.

#### **Security Analysis**

In conducting security analysis, an analyst cannot solely rely on the financial statements.

Financial reporting is affected by the choice of accounting methods, and the estimates that management uses to determine the value of assets. In order to get a good understanding of the earnings potential of a business, an analyst must understand the accounting process used to produce the financial statements to better understand the business and the results for the period. Since much of the detail information on management's accruals, adjustments and estimates is contained in the footnotes to the statements and Management's Discussion and Analysis, it is imperative that the analyst review these sections of the financial statements. Using this information an analyst should determine:

- The various accruals, adjustments and assumptions that went into the financial statements.
- The detailed information that underlies the company's accounting system.
- How well the financial statements reflect the company's true performance.
- How the data needs to be adjusted for the analyst's own analysis

Because adjustments and assumptions are at the discretion of management, analysts should always be on the lookout for possible financial statement manipulation and any situation that might incent management to falsify or misrepresent the actual operations of the firm

## **Financial Statements - Income Statement Basics**

#### I. Basics

Within this basics section, we will define each component of a multi-step income statement, and prepare a multi-step income statement.

#### Multi-Step Income Statement

A multi-step income statement is a condensed statement of income as opposed to a single-step format, which is the more detailed format. Both single and multi-step formats conform to GAAP standards. Both yield the same net income figure.

The main difference is how they are formatted, not how figures are calculated.

#### Figure 6.3: Multi-Step Income Statement

		Fiscal
		2004
	Sales	160,000
	Cost of goods sold	55,000
	Gross margin (gross profit)	105,000
	Operating expenses	38,200
	Operating income (Income from operations)	66,800
+/-	Other Revenue & expenses	6,000
	Income before Income Taxes (EBT)	60,800
	Income Taxes (38%)	23,104
	Net Income	37,696
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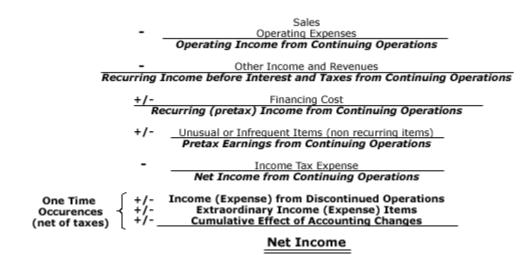
- Sales These are defined as total sales (revenues) during the accounting period. Remember these sales are net of returns, allowances and discounts
- **Cost of goods sold (COGS)** These are all the direct costs related to the product or rendered service sold and recorded during the accounting period. (Reminder: matching principle.)
- **Operating expenses** These include all other expenses that are not included in COGS but are related to the operation of the business during the specified accounting period. This account is most commonly referred to as "SG&A" (sales general and administrative) and includes expenses such as selling, marketing, administrative salaries, sales salaries, maintenance, administrative office expenses (rent, computers, accounting fees, legal fees), research and development (R&D), depreciation and amortization, etc.
- Other revenues & expenses These are all non-operating expenses such as interest earned on cash or interest paid on loans.
- Income taxes This account is a provision for income taxes for reporting purposes.

## **Financial Statements - Income Statement Components**

#### **Income Statement Format**

The following figure demonstrates which components are used to calculate a company's net income, which is the income available to shareholders.

#### Figure 6.4: How Net Income is Derived on the Income Statement



#### The Components of Net Income:

- **Operating income from continuing operations** This comprises all revenues net of returns, allowances and discounts, less the cost and expenses related to the generation of these revenues. The costs deducted from revenues are typically the COGS and SG&A expenses.
- Recurring income before interest and taxes from continuing operations This component includes, in addition to operating income from continuing operations, all other income, such as investment income from unconsolidated subsidiaries and/or other investments and gains (or losses) from the sale of assets. To be included in this category, these items must be recurring in nature. This component is generally considered to be the best predictor of future earning. That said, it does assume that noncash expenses such as depreciation and amortization are a good indicator of future capital expenditures. Since this component does not take into account the capital structure of the company (use of debt), it is also used to value similar companies.
- **Recurring (pre-tax) income from continuing operations** This component takes the company's financial structure into consideration as it deducts interest expenses.
- **Pre-tax earning from continuing operations** This component considers all unusual or infrequent items. Included in this category are items that are either unusual or infrequent in nature but cannot be both. Examples are an employee-separation cost, plant shutdown, impairments, write-offs, write-downs, integration expenses, etc.
- Net income from continuing operations This component takes into account the impact of taxes from continuing operations.

#### **Non-Recurring Items**

Discontinued operations, extraordinary items and accounting changes are all reported as separate items in the income statement. They are all reported net of taxes and below the tax line, and are not included in income from continuing operations. In some cases, earlier income statements and balance sheets have to be adjusted to reflect changes.

• **Income (or expense) from discontinued operations** - This component is related to income (or expense) generated due to the shutdown of one or more divisions or

operations (plants). These events need to be isolated so they do not inflate or deflate the company's future earning potential. This type of nonrecurring occurrence also has a nonrecurring tax implication and, as a result of the tax implication, should not be included in the income tax expense used to calculate **net income from continuing operations.** That is why this income (or expense) is always reported net of taxes. The same is true for extraordinary items and cumulative effect of accounting changes (see below).

- **Extraordinary items** This component relates to items that are both unusual and infrequent in nature. That means it is a one-time gain or loss that is not expected to occur in the future. An example is environmental remediation.
- **Cumulative effect of accounting changes** This item is generally related to changes in accounting policies or estimations. In most cases, these are non cash-related expenses but could have an effect on taxes.

# **Financial Statements - Income Statement: Non-recurring Items**

Within this section we will further our discussion on the non-recurring components of net income, such as unusual or infrequent items, discontinued operations, extraordinary items, and prior period adjustments.

#### Unusual or Infrequent Items

Included in this category are items that are either unusual or infrequent in nature but cannot be both.

- Examples of unusual or infrequent items:
  - Gains (or losses) as a result of the disposition of a company's business segment including:
    - Plant shutdown costs
    - Lease-breaking fees
    - Employee-separation costs
  - Gains (or losses) as a result of the disposition of a company's assets or investments (including investments in subsidiary segments) including:
    - Plant shut-down costs
    - Lease-breaking fees
  - Gains (or losses) as a result of a lawsuit
  - Losses of operations due to an earthquake
  - o Impairments, write-offs, write-downs and restructuring costs
  - Integration expenses related to the acquisition of a business

#### Look Out!

Accounting treatment is usually displayed as *pre-tax*. That means that they are displayed on the income statement after income from continuing operations gross of tax implication.

#### Extraordinary Items

Events that are both unusual and infrequent in nature are qualified as extraordinary expenses.

- Example of extraordinary items:
  - Losses from expropriation of assets
  - Gain (or losses) from early retirement of debt

#### Look Out!

Accounting treatment is usually displayed net of tax. That means that they are displayed on the income statement after income from continuing operations net of its tax implication.

#### **Discontinued Operations**

Sometimes management decides to dispose of certain business operations but either has not yet done so or did it in the current year after it had generated income or losses. To be accounted for as a discontinued operation, the business must be physically and operationally distinct from the rest of the firm. Basic definitions:

- Measurement date The date when the company develops a formal plan for disposing.
- Phaseout period Time between the measurement date and the actual disposal date

The income or loss from discontinued operations is reported separately, and past income statements must be restated, separating the income or loss from discontinued operations. On the measurement date, the company will accrue any estimated loss during the phaseout period and estimated loss on the sale of the disposal. Any expected gain on the disposal **cannot** be reported until after the sale is completed (same rule applies to the sale of a portion of a business segment).

#### Look Out!

Important: Accounting treatment of income and losses from discontinued operations are reported net of tax after net income from continuing operations.

#### **Accounting Changes**

Accounting changes occur for two reasons:

- 1. As a result of a change in an accounting principle
- 2. As a result of a change in an accounting estimate.

The most common form of a change in accounting principle is the switch from the LIFO inventory accounting method to another method such FIFO or average cost basis.

The most common form of a change in accounting estimates is a change in depreciation method for new assets or change in depreciable lives/salvage values, which is considered a change in accounting estimates and not a change in accounting principle. Note that past income does not need to be restated from the LIFO inventory accounting method to another method such FIFO or average cost basis.

In general, prior years' financial statements do not need to be restated unless it is a change in:

- Inventory accounting methods (LIFO to FIFO)
- Change to or from full-cost method (This is used in oil & gas exploration. The successful-efforts method capitalizes only the costs associated with successful activities while the full-cost method capitalizes all the costs associated with all activities.)
- Change from or to percentage-of-completion method (look at revenue- recognition methods)
- All changes just prior to a company's IPO

#### **Prior Period Adjustments**

These adjustments are related to accounting errors. These errors are typically NOT reported in the income statement but are reported in retained earnings. (These can be found in changes in retained earnings.) These errors are disclosed as footnotes explaining the nature of the error and its effect on net income.

## **Financial Statements - Balance Sheet Basics**

#### I. Basics

Within this section we'll define each asset and liability category on the balance sheet, and prepare a classified balance sheet

#### **Balance Sheet Categories**

The balance sheet provides information on what the company owns (its assets), what it owes (its liabilities) and the value of the business to its stockholders (the shareholders' equity) as of a specific date.

Total Assets = Total Liabilities + Shareholders' Equity

- Assets are economic resources that are expected to produce economic benefits for their owner.
- Liabilities are obligations the company has to outside parties. Liabilities represent others' rights to the company's money or services. Examples include bank loans, debts to suppliers and debts to employees.
- Shareholders' equity is the value of a business to its owners after all of its obligations have been met. This net worth belongs to the owners. Shareholders' equity generally reflects the amount of capital the owners have invested, plus any profits generated that were subsequently reinvested in the company.

#### Look Out!

## Components of Total Assets on the balance sheet are listed in order of liquidity and maturity.

#### **Balance Sheet Presentation Formats**

Although there are no required reporting balance sheet designs there are two customary formats that are used, the account format and the report format. The two formats follow the accounting equation by subtotaling assets and showing that they equal the combination of liabilities and shareholder's equity. However, the report format presents the categories in one vertical column, while the report format places assets in one column on the left hand side and places liabilities and shareholder's equity on the right. Both formats can be collapsed further into a classified balance sheet that subtotals and shows only similar categories such as current assets, noncurrent assets, current liabilities, etc.

## **Financial Statements - Balance Sheet Components - Assets**

#### **Total Assets**

Total assets on the balance sheet are composed of:

**1.** Current Assets - These are assets that may be converted into cash, sold or consumed within a year or less. These usually include:

• **Cash** - This is what the company has in cash in the bank. Cash is reported at its market value at the reporting date in the respective currency in which the financials are prepared. (Different cash denominations are converted at the market conversion rate.

- Marketable securities (short-term investments) These can be both equity and/or debt securities for which a ready market exist. Furthermore, management expects to sell these investments within one year's time. These short-term investments are reported at their market value.
- Accounts receivable This represents the money that is owed to the company for the goods and services it has provided to customers on credit. Every business has customers that will not pay for the products or services the company has provided. Management must estimate which customers are unlikely to pay and create an account called allowance for doubtful accounts. Variations in this account will impact the reported sales on the income statement. Accounts receivable reported on the balance sheet are net of their realizable value (reduced byallowance for doubtful accounts).
- Notes receivable This account is similar in nature to accounts receivable but it is supported by more formal agreements such as a "promissory notes" (usually a short term-loan that carries interest). Furthermore, the maturity of notes receivable is generally longer than accounts receivable but less than a year. Notes receivable is reported at its net realizable value (what will be collected).
- **Inventory** This represents raw materials and items that are available for sale or are in the process of being made ready for sale. These items can be valued individually by several different means at cost or current market value and collectively by FIFO (first in, first out), LIFO (last in, first out) or average-cost method. Inventory is valued at the lower of the cost or market price to preclude overstating earnings and assets.
- **Prepaid expenses** These are payments that have been made for services that the company expects to receive in the near future. Typical prepaid expenses include rent, insurance premiums and taxes. These expenses are valued at their original cost (historical cost).

**2. Long-term assets** - These are assets that **may not** be converted into cash, sold or consumed within a year or less. The heading "Long-Term Assets" is usually not displayed on a company's consolidated balance sheet. However, all items that are not included in current assets are long-term Assets. These are:

- **Investments** These are investments that management does not expect to sell within the year. These investments can include bonds, common stock, long-term notes, investments in tangible fixed assets not currently used in operations (such as land held for speculation) and investments set aside in special funds, such as sinking funds, pension funds and plan-expansion funds. These long-term investments are reported at their historical cost or <u>market value</u> on the balance sheet.
- **Fixed assets** These are durable physical properties used in operations that have a useful life longer than one year. This includes:
  - Machinery and equipment This category represents the total machinery, equipment and furniture used in the company's operations. These assets are reported at their historical cost less accumulated depreciation.
  - Buildings (plants) These are buildings that the company uses for its operations. These assets are depreciated and are reported at historical cost less <u>accumulated</u> <u>depreciation</u>.

- Land The land owned by the company on which the company's buildings or plants are sitting on. Land is valued at historical cost and is not depreciable under U.S. GAAP
- Other assets This is a special classification for unusual items that cannot be included in one of the other asset categories. Examples include deferred charges (long-term prepaid expenses), non-current receivables and advances to subsidiaries.
- Intangible assets These are assets that lack physical substance but provide economic rights and advantages: patents, franchises, copyrights, good will, trademarks and organization costs. These assets have a high degree of uncertainty in regard to whether future benefits will be realized. They are reported at historical cost net of accumulated depreciation.

The value of an **identifiable intangible asset** is based on the rights or privileges conveyed to its owner over a finite period, and its value is amortized over its useful life. Identifiable intangible assets include patents, trademarks and copyrights. Intangible assets that are purchased are reported on the balance sheet at historical cost less accumulated amortization.

An **unidentifiable intangible asset** cannot be purchased separately and may have an infinite life. Intangible assets with infinite lives are not amortized, and are tested for impairment annually, at least. Goodwill is an example of an unidentifiable intangible asset. Goodwill is recorded when one company acquires another at an amount that exceeds the fair market value of its net identifiable assets. It represents the premium paid for the target company's reputation, brand names, customers, suppliers, human capital, etc. When computing financial ratios, goodwill and the offsetting impairment charges are usually removed from the balance sheet.

Certain intangible assets that are created internally such as research and development costs are expensed as incurred under U.S. GAAP. Under IFRS, a firm must identify if the R&D cost is in the research and development stage. Costs are expensed in the research stage and capitalized during the development stage.

#### Look Out!

These assets are listed in order of their liquidity and tangibility. Intangible assets are listed last since they have high uncertainty and liquidity.

## **Financial Statements - Balance Sheet Components -Marketable & Nonmarketable Instruments**

#### Marketable & Nonmarketable Instruments

Financial instruments are found on both sides of the balance sheet. Some are contracts that represent the asset of one company and the liability of another. Financial assets include investment securities like stocks and bonds, derivatives, loans and receivables. Financial liabilities include derivatives, notes payable and bonds payable. Some financial instruments are

reported on the balance sheet at fair value (*marking to market*), while others are reported at present value or at cost. The FASB recently issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities," which allows any firm the ability to report almost any financial asset or liability at fair value. Marketable investment securities are classified as one of the following:

- Held to Maturity Securities: Debt securities that are acquired with the intention of holding them until maturity. They are reported at cost and adjusted for the payment of interest. Unrealized gains or losses are not reported.
- **Trading Securities:** Debt and equity securities that are acquired with the intention to trade them in the near term for a profit. Trading securities are reported on the balance sheet at fair value. Unrealized gains and losses before the securities are sold are reported in the income statement.
- Available for Sale Securities: are debt and equity securities that are not expected to be held until maturity or sold in the near term. Although like trading securities, available for sale securities are reported on the balance sheet at fair value, unrealized gains and losses are reported as other income as part of stockholder's equity.

With all three types of financial securities, income in the form of interest and dividends, as well as realized gains and losses when they are sold, are reported in the income statement.

Assets	Liabilities
Financial assets held for trading	Financial assets held for trading
Financial assets available for sale	Derivatives
Derivatives	Non-derivative instruments hedged by
	derivatives
Non-derivative instruments hedged by	
derivatives	

The following are measured at **fair value**:

The following are measured at cost or amortized cost:

Assets	Liabilities
Unlisted instruments	All other liabilities (accounts payable,
	notes payable)
Held-to-maturity investments	
Loans and receivables	