

Under International Financial Reporting Standards (IFRS), if the firm cannot reliably measure the outcome of the project, revenue is recognized to the extent of contract costs, costs are expensed when incurred, and profit is recognized at completion.

Under U.S. GAAP, the *completed-contract method* is used when the outcome of a project cannot be reliably measured or the project is short-term. Revenue, expense, and profit are only recognized when the contract is complete.

As compared to the completed contract method, the percentage-of-completion method is considered more aggressive because revenue is reported sooner. The percentage-of-completion method provides smoother earnings and results in better matching of revenues and expenses. Cash flow is the same under both methods.

An **installment sale** occurs when a firm finances a sale and payments are expected to be received over an extended period. If collectability is certain, revenue is recognized at the time of sale. If collectability cannot be reasonably estimated, the **installment method** is used, and if collectability is highly uncertain, the **cost recovery method is used**.

Under the *installment method*, profit recognized is the proportion of cash collected multiplied by the total expected profit. The installment method is used in limited circumstances, usually involving the sale of real estate. Under the *cost recovery method*, profit is recognized only when, and to the extent that, cash collections exceed estimated total costs.

In a **barter transaction**, two parties exchange goods or services without any cash payment. According to U.S. GAAP, revenue can be recognized at fair value only if the firm has historically received cash payments for such services and can use this historical experience to determine fair value.⁶ Under IFRS, revenue from barter transactions must be measured based on the fair value of revenue from similar non-barter transactions with unrelated parties.⁷

Gross vs. Net Revenue Reporting

Under **gross revenue reporting**, the selling firm reports sales revenue and cost of goods sold separately. Under **net revenue reporting**, only the difference between sales and cost is reported. While profit is the same, reported sales are higher using

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6. Emerging Issues Task Force EITF 99–17, “Accounting for Advertising Barter Transactions.”
 7. IASB, SIC Interpretation 31, Revenue – Barter Transactions Involving Advertising Services, paragraph 5.

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gross revenue reporting. Firms disclose their revenue recognition policies in the financial statement footnotes.

Users of financial information must consider two points when analyzing a firm's revenue: (1) how conservative the firm's revenue recognition policies are (recognizing revenue sooner rather than later is more aggressive), and (2) to what extent the firm's policies rely on estimates and judgments.

IFRS-U.S. GAAP Convergence

In May 2014, IASB and FASB issued principles-based standards for revenue recognition that are scheduled to go into effect December 15, 2017, for U.S. GAAP reporting firms and January 1, 2018, for IFRS reporting firms. The central principle is that a firm should recognize revenue when it has transferred a good or service to a customer.

The converged standards identify a five-step process for recognizing revenue:

1. Identify the contract(s) with a customer.
2. Identify the performance obligations in the contract.
3. Determine the transaction price.
4. Allocate the transaction price to the performance obligations in the contract.
5. Recognize revenue when (or as) the entity satisfies a performance obligation.

A **performance obligation** is a promise to deliver a distinct good or service. A **transaction price** is the amount a firm expects to receive from a customer in exchange for transferring a good or service.

Recognition of Expense

Under the accrual method of accounting, expense recognition is based on the *matching principle*, whereby expenses for producing goods and services are recognized in the period in which the revenue for the goods and services is recognized. Expenses that are not tied directly to generating revenue, such as administrative costs, are called *period costs* and are expensed in the period incurred.

The cost of long-lived assets must also be matched with revenues. The allocation of cost over an asset's useful life is known as **depreciation or amortization expense**.

If a firm sells goods or services on credit or provides a warranty to the customer, the matching principle requires the firm to estimate bad-debt expense and/or warranty expense. Since estimates are involved, it is possible for firms to delay the recognition of expense. Delayed expense recognition increases net income and is, therefore, more aggressive.

Depreciation

Most firms use the **straight-line depreciation** method for financial reporting purposes. However, most assets generate proportionally more benefits in their early years and an **accelerated depreciation** method is more appropriate for matching revenues and expenses. In the early years of an asset's life, the straight-line method will result in lower depreciation expense and higher net income than accelerated methods.

Straight-line depreciation (SL) allocates an equal amount of depreciation each year over the asset's useful life as follows:

$$\text{SL depreciation expense} = \frac{\text{cost} - \text{residual value}}{\text{useful life}}$$

The most common *accelerated method* of depreciation is the **double-declining balance method** (DDB), which uses 200% of the straight-line rate, applied against the declining balance (value net of depreciation). If an asset's life is 10 years, the straight-line rate is 1/10 or 10%. The DDB rate for this asset is 2/10 or 20%.

$$\text{DDB depreciation} = \left(\frac{2}{\text{useful life}} \right) (\text{asset cost} - \text{accumulated depreciation})$$

DDB does not use the residual value in the calculations, but depreciation stops once residual value has been reached.

Inventory

Under the **first-in, first-out** (FIFO) method, the first item purchased is the first item sold. FIFO is appropriate for inventory that has a limited shelf life. Under the **last-in, first-out** (LIFO) method, the last item purchased is the first item sold. LIFO is appropriate for inventory that does not deteriorate with age. For example, a coal mining company will sell coal off the top of the pile. The **average cost**

method, which allocates the average cost of all inventory to each unit sold, is popular because of its ease of use.

In the United States, LIFO is popular because of the income tax benefits. LIFO results in higher cost of goods sold in an inflationary environment. Higher cost of goods sold results in lower taxable income, and thus lower income taxes. LIFO inventory accounting is not permitted under IFRS.

Intangible Assets

Amortization expense of intangible assets with limited lives is similar to depreciation; the expense should match the benefits/value used over the period. Most firms, however, use the straight-line method. Goodwill and other intangible assets with *indefinite lives* are not amortized. However, they must be tested for impairment at least annually. If the asset is impaired, an expense is recognized in the income statement.

Operating and Nonoperating Components of the Income Statement

Operating and nonoperating transactions are usually reported separately in the income statement. For a nonfinancial firm, nonoperating transactions may result from investment income and financing expenses (interest). The income from and the gains and losses on the sale of these securities are not a part of the firm's normal business operations. For a financial firm, such income, gains, and losses may be considered operating income.

Discontinued Operations

A *discontinued operation* (must be physically and operationally distinct from the rest of the firm) is one that management has decided to dispose of, but either has not yet done so, or disposed of in the current period after the operation had generated income or losses. Income and losses from discontinued operations are reported separately in the income statement, net of tax, after income from continuing operations. While discontinued operations do not affect net income from continuing operations, the analyst must decide their effect on firm earnings and cash flows in the future.

Unusual or infrequent items are recorded for events that are either unusual in nature or infrequent in occurrence. Unusual or infrequent items are included in income from continuing operations. Examples include:

- Gains or losses from the sale of assets or part of a business (that do not qualify as discontinued operations).
- Impairments, write-offs, write-downs, and restructuring costs.

An analyst must review these to determine their effect, if any, on future income.

Accounting Changes

A **change in accounting principle** refers to the change from one GAAP or IFRS method to another method and requires retrospective application so all of the prior period financial statements currently presented are restated to reflect the change.

Generally, a **change in accounting estimate** is the result of a change in management's judgment, usually due to new information. For example, management may change the estimated useful life of an asset because new information indicates the asset has a longer life than originally expected. A change in estimate is applied prospectively and does not require the restatement of prior financial statements. Accounting changes typically do not affect cash flow. An analyst should review accounting principle changes and changes in accounting estimates to determine the impact on future operating results.

A change from an incorrect accounting method to one that is acceptable under GAAP or IFRS, or the correction of an accounting error, is reported as a **prior-period adjustment**. Prior-period adjustments are made by restating results for all prior period statements presented in the current financial statements. Disclosure of the nature of the adjustment and of its effect on net income is also required.

Prior-period adjustments usually involve errors or new accounting standards and typically do not affect cash flow unless tax accounting is also affected. Analysts should review adjustments carefully because errors may indicate weaknesses in the firm's internal control system.

Earnings Per Share

The following basic definitions are essential.

Potentially dilutive securities. These securities include stock options, warrants, convertible debt, and convertible preferred stock.

Dilutive securities. Those securities that would *decrease EPS* if exercised and converted to common stock.

Antidilutive securities. Those securities that would *increase EPS* if exercised and converted to common stock.

Simple capital structure. A capital structure that contains *no potentially dilutive* securities. This structure contains only common stock, nonconvertible debt, and nonconvertible preferred stock.

Complex capital structures. Complex structures contain *potentially dilutive securities* such as options, warrants, or convertible securities.

Weighted average number of shares outstanding. Each share issue is weighted by the portion of the year it was outstanding. Stock splits and stock dividends are applied retroactively to the beginning of the year, so “old” shares are converted to “new” shares for consistency.

Basic EPS

The basic EPS calculation *does not* consider the effects of any dilutive securities in the computation of EPS. It is the only EPS presented for firms with simple capital structures and is one of the two EPS calculations presented for firms with complex capital structures.

$$\text{basic EPS} = \frac{\text{net income} - \text{preferred dividends}}{\text{weighted average number of common shares outstanding}}$$

Diluted EPS

If a firm has a complex capital structure (contains potentially dilutive securities), both basic and diluted EPS must be reported. To calculate diluted EPS, treat any *dilutive* securities as if they were converted to common stock from the first of the year (or when issued if issued during the current year).

Each potentially dilutive security must be considered separately to determine whether or not it is actually dilutive for the current reporting period. Only income from continuing operations (excluding discontinued operations and accounting changes) is considered in determining diluted EPS.

To determine whether a convertible security is dilutive, calculate:

$$\frac{\text{convertible pfd. dividends}}{\# \text{ shares from conversion of pfd.}} \text{ or } \frac{\text{convertible debt interest (1} - \text{tax rate)}}{\# \text{ shares from conversion of debt}}$$

If the calculated amount is less than basic EPS, the security is dilutive.

When considering dilutive securities, the denominator is the basic EPS denominator adjusted for the equivalent number of common shares created by the

conversion of all outstanding dilutive securities (convertible bonds, convertible preferred shares, plus options and warrants).

$$\text{diluted EPS} = \frac{\text{adjusted income available for common shares}}{\text{weighted-average common and potential common shares outstanding}}$$

where adjusted income available for common shares is:

- earnings available for common shares
- + dividends on dilutive convertible preferred stock
- + after-tax interest on dilutive convertible debt

Therefore, diluted EPS is:

$$\text{diluted EPS} = \frac{\left[\text{net income} - \frac{\text{preferred dividends}}{\text{shares from conv. pfd. shares}} \right] + \left(\begin{array}{c} \text{convertible} \\ \text{preferred} \\ \text{dividends} \end{array} \right) + \left(\begin{array}{c} \text{convertible} \\ \text{debt} \\ \text{interest} \end{array} \right) (1-t)}{\left(\begin{array}{c} \text{weighted} \\ \text{average} \\ \text{shares} \end{array} \right) + \left(\begin{array}{c} \text{shares from} \\ \text{conversion of} \\ \text{conv. pfd. shares} \end{array} \right) + \left(\begin{array}{c} \text{shares from} \\ \text{conversion of} \\ \text{conv. debt} \end{array} \right) + \left(\begin{array}{c} \text{shares} \\ \text{issuable from} \\ \text{stock options} \end{array} \right)}$$

With respect to convertible bonds, remember that what you are looking for is a reduction in EPS. The denominator is rising due to the increased number of shares, and the numerator is rising due to the after-tax interest cost savings. When the denominator is rising faster than the numerator, conversion is dilutive.

Treasury Stock Method

The *treasury stock method* assumes that the hypothetical funds received by the company from the exercise of options or warrants are used to purchase shares of the company's common stock at the average market price over the reporting period.

Options and warrants are dilutive whenever the exercise price is less than the average stock price over the reporting period.

new shares (treasury stock method) =

$$\frac{\text{avg. mkt. price} - \text{exercise price}}{\text{average market price}} \times \# \text{ of shares covered by options/warrants}$$

Financial Ratios Based on the Income Statement

A vertical **common-size income statement** expresses all income statement items as a percentage of sales. This format is useful for time-series and cross-sectional analysis and facilitates the comparison of firms of different sizes.

It is usually more meaningful to present income tax expense as an effective rate, equal to income tax expense divided by pre-tax income, than as a percentage of sales.

Profitability ratios examine how well management has done at generating profits from sales. The different ratios are designed to isolate specific costs. Generally, higher margin ratios are desirable.

Gross profit margin is the ratio of gross profit (sales less cost of goods sold) to sales:

$$\text{gross profit margin} = \frac{\text{gross profit}}{\text{revenue}}$$

Gross profit margin can be increased by raising sales prices or lowering per-unit cost.

Net profit margin is the ratio of net income to sales:

$$\text{net profit margin} = \frac{\text{net income}}{\text{revenue}}$$

Net profit margin can be increased by raising sales prices or cutting costs.

Any subtotal presented in the income statement can be expressed in terms of a margin ratio (to revenues). For example, *operating profit margin* is equal to operating income divided by revenue. *Pretax margin* is equal to pre-tax earnings divided by revenue.

Items Excluded from the Income Statement that Affect Owners' Equity

Transactions with owners:

1. Issuing or reacquiring stock.
2. Dividends paid.

Transactions included in other comprehensive income:

1. Foreign currency translation gains and losses.
2. Adjustments for minimum pension liability.
3. Unrealized gains and losses from *cash flow hedging* derivatives.
4. Unrealized gains and losses from *available-for-sale* securities.

Comprehensive income is a measure that includes all changes to equity other than owner contributions and distributions.

UNDERSTANDING BALANCE SHEETS

Cross-Reference to CFA Institute Assigned Reading #25

The balance sheet shows the values of the assets and liabilities of the firm at a point in time. Values may be historical values, fair market values, or historical values adjusted for amortization of premiums or discounts. Balance sheet items can be divided into assets, liabilities, and equity.

$$\text{assets} = \text{liabilities} + \text{owners' equity}$$

A **classified balance sheet** groups together similar items (current assets, current liabilities, current liabilities, noncurrent liabilities) to arrive at significant subtotals. Under IFRS, a **liquidity-based presentation** may be used if it is more relevant and reliable, as for a financial institution.

Accrual Process

The accrual method of accounting creates assets and liabilities.

- Cash received in advance of recognizing revenue results in an increase in assets (cash) and an increase in liabilities (unearned revenue).
- Recognizing revenue before cash is received results in an increase in assets (accounts receivable) and an increase in equity (retained earnings). Cash paid in advance of recognizing expense results in a decrease in one asset (cash) and an increase in another asset (prepaid expenses) by the same amount.
- Recognizing an expense before cash is paid results in an increase in liabilities (accrued expenses) and a decrease in equity (retained earnings).

Current and Noncurrent Assets and Liabilities

Current assets include cash and other assets that will be converted into cash or used up within one year or operating cycle, whichever is greater.

Current liabilities are obligations that will be satisfied within one year or operating cycle, whichever is greater. More specifically, a liability that meets any of the following criteria is considered current:

- Settlement is expected during the normal operating cycle.
- It is held for trading purposes.
- Settlement is expected within one year.
- There is no unconditional right to defer settlement for at least one year.

Current assets minus current liabilities equals **working capital**.

Noncurrent assets do not meet the definition of current assets; that is, they will not be converted into cash or used up within one year or operating cycle.

Noncurrent liabilities do not meet the criteria of current liabilities.

If a firm includes (consolidates) balance sheet accounts of a subsidiary that is not 100% owned, the firm reports a **noncontrolling interest or minority interest** in its consolidated balance sheet. The noncontrolling interest is the pro-rata share of the subsidiary's net assets (equity) not owned by the parent company. Noncontrolling interest is reported in the equity section of the consolidated balance sheet.

Measurement Bases of Assets and Liabilities

Balance sheet assets and liabilities are valued using both **historical cost** and **fair value**.

- *Historical cost* is the value that was exchanged at the acquisition date. Historical cost is objective (highly reliable), but its relevance to an analyst declines as values change.
- *Fair value* is the amount at which an asset could be bought or sold, or a liability can be incurred or settled, between knowledgeable, willing parties in an arm's length transaction.

Some of the more common **current assets** are:

- **Cash, and cash equivalents**—cash equivalents typically mature in 90 days or less (e.g., 90-day T-bills).
- **Accounts receivable (trade receivables)**—receivables are reported net of any allowance for bad debt.

- **Inventories**—items held for sale or used in the manufacture of goods to be sold. Firms that use the **retail method** measure inventory at retail prices and subtract an expected gross margin to reflect cost.
- **Marketable securities**—debt or equity securities that are traded in a public market.
- **Other current assets**—includes prepaid expenses.

Some examples of **current liabilities** are:

- **Accounts payable (trade payables)**—amounts owed to suppliers.
- **Notes payable**—obligations in the form of promissory notes due to creditors within one year or operating cycle, whichever is greater.
- **Current portion of long-term debt**—the principal portion of debt due within one year or operating cycle, whichever is greater.
- **Taxes payable**—current taxes that have been recognized in the income statement but have not yet been paid.
- **Accrued liabilities (accrued expenses)**—expenses that have been recognized in the income statement but are not yet contractually due.
- **Unearned revenue (income)**—cash collected in advance of providing goods and services. The related liability is to provide those goods and services.

Tangible Assets

Long-term assets with physical substance are known as *tangible assets*. Tangible assets, such as plant, equipment, and natural resources, are reported on the balance sheet at historical cost less accumulated depreciation or depletion.

Land is also a tangible asset that is reported at historical cost and is not depreciated.

Under IFRS, tangible assets held for capital appreciation or to earn rental income are classified as **investment property**.

Intangible Assets

Intangible assets are long-term assets that lack physical substance. The cost of an identifiable intangible asset is amortized over its useful life. Examples of identifiable intangible assets include patents, trademarks, and copyrights.

An intangible asset that is *unidentifiable* cannot be purchased separately and may have an infinite life. The best example of an unidentifiable intangible asset is **goodwill**.

Goodwill is created when a business is purchased for more than the fair value of its assets net of liabilities. Goodwill is not amortized, but must be tested for

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impairment (a decrease in its fair value) at least annually. Since goodwill is not amortized, firms can manipulate net income upward by allocating more of the acquisition price to goodwill and less to the identifiable assets. The result is less depreciation and amortization expense and thus higher net income.

When computing ratios, analysts should eliminate goodwill from the balance sheet and goodwill impairment charges from the income statement for comparability. Also, analysts should evaluate future acquisitions in terms of the price paid relative to the earning power of the acquired firm.

Intangible assets that are purchased are reported on the balance sheet at historical cost less accumulated amortization. Except for certain legal costs, intangible assets that are created internally, including research and development costs, are expensed as incurred under U.S. GAAP and are not shown on the balance sheet.

Under IFRS, a firm must identify the research stage and the development stage. Accordingly, the firm must expense costs during the research stage but *may* capitalize costs incurred during the development stage.

All of the following should be expensed as incurred, and do not create balance sheet assets:

- Start-up and training costs.
- Administrative overhead.
- Advertising and promotion costs.
- Relocation and reorganization costs.
- Termination costs.

Some analysts completely eliminate intangible assets, particularly unidentifiable intangibles, for analytical purposes. This is inadvisable. Analysts should consider the economic value of each intangible asset before making an adjustment.

Accounting Treatments for Financial Instruments

Marketable investment securities are classified as one of the following:

- **Held-to-maturity securities.** Debt securities acquired with the intent to be held to maturity are reported on the balance sheet at amortized cost. Amortized cost is equal to the face (par) value less any unamortized discount or plus any unamortized premium, as it is with debt issued by the firm.
- **Trading securities.** Debt and equity securities acquired with the intent to profit from near-term price fluctuations are reported on the balance sheet at fair value. Unrealized gains and losses are recognized in the income statement. **Derivatives** are treated as trading securities.

- **Available-for-sale securities.** Debt and equity securities that are not expected to be held to maturity or traded in the near term are reported on the balance sheet at fair value. Unrealized gains and losses are not recognized in the income statement, but are reported in other comprehensive income as a part of stockholders' equity.

Dividend and interest income, and realized gains and losses (actual gains or losses when the securities are sold), are recognized in the income statement for all three classifications of securities.

Figure 1: Summary of Investment Security Classifications

	<i>Trading</i>	<i>Available-for-sale</i>	<i>Held-to-maturity</i>
Balance sheet	Fair value	Fair value	Amortized cost
Income statement	<ul style="list-style-type: none"> • Dividends • Interest • Realized G/L • Unrealized G/L 	<ul style="list-style-type: none"> • Dividends • Interest • Realized G/L 	<ul style="list-style-type: none"> • Interest • Realized G/L

Components of Owners' Equity

Owners' equity is the residual interest in assets that remains after subtracting an entity's liabilities. The owners' equity section of the balance sheet includes:

- **Contributed capital**—the total amount received from the issuance of common and preferred stock.
- **Noncontrolling interest** (minority interest)—the minority shareholders' pro-rata share of the net assets (equity) of a consolidated subsidiary that is partially owned by the parent.
- **Retained earnings**—the cumulative net income of the firm since inception that has not been paid out as dividends.
- **Treasury stock**—stock that has been reacquired by the issuing firm but not yet retired. Treasury stock has no voting rights and does not receive dividends.
- **Accumulated other comprehensive income**—includes all changes in stockholders' equity not recognized in the income statement or from issuing stock, reacquiring stock, and paying dividends.

Under U.S. GAAP, the firm can report comprehensive income in the income statement (below net income), in a separate statement of comprehensive income, or in the statement of changes in stockholders' equity. Under IFRS, a firm can include all revenue and expense items in the statement of comprehensive income, or may present a separate income statement and a statement of comprehensive income.

The **statement of changes in stockholders' equity** summarizes all transactions that increase or decrease the equity accounts for the period.

Analysis of the Balance Sheet

A vertical **common-size balance sheet** expresses all balance sheet accounts as a percentage of total assets and allows the analyst to evaluate the balance sheet changes over time (*time-series analysis*) as well as to compare the balance sheets with other firms, industry, and sector data (*cross-sectional analysis*). Several commercial services provide data for comparison.

Liquidity ratios measure the firm's ability to satisfy short-term obligations when due.

- The **current ratio** is the best-known measure of liquidity.

$$\text{current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

A current ratio of less than one means the firm has negative working capital and may be facing a liquidity crisis. Working capital is equal to current assets minus current liabilities.

- The **quick ratio** (acid test ratio) is a more conservative measure of liquidity because it excludes inventories and less liquid current assets from the numerator.

$$\text{quick ratio} = \frac{\text{cash} + \text{marketable securities} + \text{receivables}}{\text{current liabilities}}$$

- The **cash ratio** is the most conservative measure of liquidity.

$$\text{cash ratio} = \frac{\text{cash} + \text{marketable securities}}{\text{current liabilities}}$$

The higher its liquidity ratios, the more likely the firm will be able to pay its short-term bills when due. The ratios differ only in the assumed liquidity of the current assets.

Solvency ratios measure a firm's financial risk and measure the firm's ability to satisfy long-term obligations (its solvency). The higher the ratio, the greater the financial leverage and the greater the financial risk.

- The **long-term debt-to-equity ratio** measures long-term financing sources relative to the equity base.

$$\text{long-term debt-to-equity} = \frac{\text{total long-term debt}}{\text{total equity}}$$

- The **debt-to-equity ratio** measures total debt relative to the equity base.

$$\text{debt-to-equity} = \frac{\text{total debt}}{\text{total equity}}$$

- The **total debt ratio** measures the extent to which assets are financed by creditors.

$$\text{total debt ratio} = \frac{\text{total debt}}{\text{total assets}}$$

- The **financial leverage ratio** is a variation of the debt-to-equity ratio that is used as a component of the DuPont model.

$$\text{financial leverage ratio} = \frac{\text{total assets}}{\text{total equity}}$$

UNDERSTANDING CASH FLOW STATEMENTS

Cross-Reference to CFA Institute Assigned Reading #26

The **cash flow statement** provides information beyond that available from net income and other financial data. The cash flow statement provides information about a firm's liquidity, solvency, and financial flexibility. The cash flow statement reconciles the beginning and ending balances of cash over an accounting period. The change in cash is a result of the firm's operating, investing, and financing activities as follows:

$$\begin{aligned} &\text{Operating activities} \\ + &\text{Investing activities} \\ + &\text{Financing activities} \\ = &\text{Change in cash balance} \\ + &\text{Beginning cash balance} \\ = &\text{Ending cash balance} \end{aligned}$$

Figure 2: U.S. GAAP Cash Flow Classifications

Operating Activities		
<i>Inflows</i>	<i>Outflows</i>	
Cash collected from customers		Cash paid to employees and suppliers
Interest and dividends received		Cash paid for other expenses
Sale proceeds from trading securities		Acquisition of trading securities
		Interest paid
		Taxes paid

Investing Activities		
<i>Inflows</i>	<i>Outflows</i>	
Sale proceeds from fixed assets		Acquisition of fixed assets
Sale proceeds from debt & equity investments		Acquisition of debt & equity investments
Principal received from loans made to others		Loans made to others

Financing Activities		
<i>Inflows</i>	<i>Outflows</i>	
Principal amounts borrowed from others		Principal paid on amounts from others
Proceeds from issuing stock		Payments to reacquire stock
		Dividends paid to shareholders

Noncash investing and financing activities are not reported in the cash flow statement but must be disclosed in either a footnote or a supplemental schedule to the cash flow statement.

Differences Between U.S. GAAP and IFRS

Under IFRS:

- Interest and dividends received may be classified as either CFO or CFI.
- Dividends paid to shareholders and interest paid on debt may be classified as either CFO or CFF.
- Income taxes are reported as operating activities unless the expense can be tied to an investing or financing transaction.

Direct Method and Indirect Methods Calculating CFO

Two different methods of presenting the cash flow statement are permitted under U.S. GAAP and IFRS: the direct method and the indirect method. The use of the direct method is encouraged by both standard setters. The difference in the two methods relates to the presentation of cash flow from operating activities. Total cash flow from operating activities is exactly the same under both methods, and the

presentation of cash flow from investing activities and from financing activities is exactly the same under both methods.

The direct method provides more information than the indirect method. The main advantage of the indirect method is that it focuses on the differences between net income and operating cash flow.

Direct Method

The direct method presents operating cash flow by taking each item from the income statement and converting it to its cash equivalent by adding or subtracting the changes in the corresponding balance sheet accounts. The following are examples of operating cash flow components:

- Cash collected from sales is the main component of CFO. Cash collections are calculated by adjusting sales for the changes in accounts receivable and unearned (deferred) revenue.
- Cash used in the production of goods and services (cash inputs) is calculated by adjusting cost of goods sold (COGS) for the changes in inventory and accounts payable.

Indirect Method

Using the indirect method, operating cash flow is calculated in four steps:

- Step 1:* Begin with net income.
Step 2: Subtract gains or add losses that resulted from financing or investing cash flows (such as gains from sale of land).
Step 3: Add back all noncash charges to income (such as depreciation and amortization) and subtract all noncash components of revenue.
Step 4: Add or subtract changes to related balance sheet operating accounts as follows:
 - Increases in the operating asset accounts (uses of cash) are subtracted, while decreases (sources of cash) are added.
 - Increases in the operating liability accounts (sources of cash) are added, while decreases (uses of cash) are subtracted.

Most firms present the cash flow statement using the indirect method. For analytical purposes, it may be beneficial to *convert the cash flow statement to the direct method*. Examples of such conversion for two items are:

Cash collections from customers:

1. Begin with net sales from the income statement.
2. Subtract (add) any increase (decrease) in the accounts receivable balance as reported in the indirect method.
3. Add (subtract) an increase (decrease) in unearned revenue.

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Cash payments to suppliers:

1. Begin with cost of goods sold (COGS) as reported in the income statement.
2. If depreciation and/or amortization have been included in COGS (they increase COGS), they must be eliminated when computing the cash paid to suppliers.
3. Subtract (add) any increase (decrease) in the accounts payable balance as reported in the indirect method.
4. Add (subtract) any increase (decrease) in the inventory balance as disclosed in the indirect method.
5. Subtract any inventory write-off that occurred during the period.

Disclosure Requirements

Under U.S. GAAP, a direct method presentation must also disclose the adjustments necessary to reconcile net income to cash flow from operating activities. The reconciliation is not required under IFRS.

Under IFRS, payments for interest and taxes must be disclosed separately in the cash flow statement under either method (direct or indirect). Under U.S. GAAP, payments for interest and taxes can be reported in the cash flow statement or disclosed in the footnotes.

Investing and Financing Cash Flows

Investing cash flows (CFI) are calculated by subtracting expenditures on new assets from the proceeds of asset sales.

When calculating the cash from an asset that has been sold, it is necessary to consider any gain or loss from the sale using the following formula:

$$\text{cash from asset sold} = \text{book value of the asset} + \text{gain (or - loss) on sale}$$

Financing cash flows (CFF) are determined by measuring the cash flows occurring between the firm and its suppliers of capital. Cash flows between the firm and creditors result from new borrowings and debt repayments. Note that interest paid is technically a cash flow to the creditors, but it is already included in CFO under U.S. GAAP. Cash flows between the firm and the shareholders occur when equity is