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| Chapter 13 Outline Mcgraw |
| **I. Basics of Analysis—**Transforming *data* into useful information. |
| A. Purpose of Analysis To help users (both internal and external) make better business decisions. |
| 1. Internal users (managers, officers and internal auditors) make the strategic and operating decisions of a company. Purposes for these users is to provide strategic information to improve company efficiency and effectiveness in providing products and services. |
| 2. External users (shareholders, lenders, and suppliers) rely on financial statement analysis to make informed decisions in pursuing their own goals. |
| 1. The common goal of all users is to evaluate:   a. Past and current performance.  b. Current financial position.  c. Future performance and risk. |
| B. Building Blocks of Analysis The four areas of inquiry or building blocks are: |
| 1. Liquidity and efficiency—ability to meet short-term obligations and to efficiently generate revenues. |
| 2. Solvency—ability to generate future revenues and meet long-term obligations.  3. Profitability—ability to provide financial rewards sufficient to attract and retain financing.  4. Market prospects—ability to generate positive market expectations. |
| C. Information for Analysis Most users conduct analysis using *general purpose financial statements* that include: |
| 1. Income statement  2. Balance sheet  3. Statement of stockholders’ equity (or statement of retained earnings)  4. Statement of cash flows  5. Notes related to the statements   1. Other useful financial data—10K/other SEC filings, news releases, shareholders’ meetings, forecasts, management letters, auditor’s report, and analyses published in annual reports. |
| D. Standards for Comparisons We need standards (benchmarks) can include the following types of comparisons: | |
| 1. Intracompany—based on *prior performance* and relations between its financial items.  2. Competitor—competitors provide standards for comparisons.  3. Industry—published industry statistics (available from services like Dun & Bradstreet, Standard and Poor’s, and Moody’s) provide standards for comparisons.  4. Guidelines (rules of thumb)—standards of comparisons developed from experience. | |
| E. Tools of Analysis | |
| 1. Horizontal analysis  2. Vertical analysis  3. Ratio analysis | |
| **II. Horizontal Analysis—**Tool to evaluate changes in financial statement data *across time.* This analysis utilizes: | |
| 1. Comparative Statements 2. Reports where financial amounts for more than one period are placed side by side in columns on a single statement. | |
| 2. Dollar Changes and Percent Changes—usually shown in line items. | |
| a. Dollar change = Analysis period amount minus Base period amount.   1. Percent change = (Analysis period amount minus Base period amount) divided by Base period amount multiplied by 100.  *Note three special cases below*: | |
| 1. When a negative amount appears in the base period and a positive amount in the analysis period (or vice versa) a meaningful percentage change cannot be computed. 2. When there is no value in the base period—percentage change is not computable. 3. When an item has a value in the base period and zero in the next period—the decrease is 100 percent. | |
| 3. Comparative Balance Sheets—balance sheets from two or more periods arranged side-by-side. Dollar and percentage changes are often shown. We review both large and small changes.  4. Comparative Income Statements—also compares two or more periods presented side-by side with dollar and percentage changes. | |
| B. Trend Analysis (also called *trend percent analysis* or *index number trend analysis*) | |
| 1. A form of horizontal analysis used to reveal patterns in data across successive periods.  2. Involves computing trend percents (or *index number*) as follows: Analysis period amount divided by base period amount) multiplied by 100.  3. Often aided by graphical depiction. | |
| **III. Vertical Analysis**—(also called *common-size analysis*) Comparing financial condition and performance to a *base amount*. The analysis tools include: | |
| A. Common-Size Statements—reveal changes in the relative importance of each financial statement item by redefining each in terms *of common-size percents.* | |
| 1. Base amount is commonly defined as 100%. Usually a key aggregate figure is the base (Examples: revenue is the income statement base and total assets is the balance sheet base).  2. Sum of individual items is 100%.  3. Common-size percentage equals (Analysis amount divided by Base amounts) multiplied by 100. | |
| 1. Data Visualizations—reveal trends and insights not easily seen by looking at numbers (ex. pie charts and bar charts) to visually highlight comparison information. Used to identify: 2. Sources of financing, including the distribution among current liabilities, noncurrent liabilities, and equity capital, and 3. Types of investing activities, including distribution among current and noncurrent assets. | |
| **IV. Ratio Analysis**—widely used in financial analysis because they help to uncover conditions and trends difficult to detect by inspecting individual amounts. Ratios are organized into the four (A to D below) building blocks of analysis: | |
| A. Liquidity and Efficiency | |
| 1. *Liquidity* refers to the availability of resources to meet short-term cash requirements.  2*. Efficiency* refers to how productive a company is in using its assets. Efficiency is usually measured relative to how much revenue is generated for a certain level of assets.  3. Ratios in this block: | |
| a. Working capital—the excess of current assets less current liabilities.   1. Current ratio—current assets divided by current liabilities; describes a company’s ability to pay its short-term obligations. 2. Acid-test ratio—similar to current ratio but focuses on quick assets (i.e., cash, short-term investments, current receivables, and notes receivable) rather than current assets. Calculated as quick assets divided by current liabilities. | |

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| d. Accounts receivable turnover—net sales or credit sales divided by average accounts receivable; a measure of how long it takes a company to collect its accounts.  e. Inventory turnover—cost of goods sold divided by average inventory; the number of times a company’s average inventory is sold during an accounting period.  f. Days’ sales uncollected—(accounts receivable divided by net credit sales) multiplied by 365 days; measures how frequently a company collects its accounts receivable.  g. Days’ sales in inventory—(ending inventory divided by cost of goods sold) multiplied by 365; measures how many days it will take to convert the inventory on hand at the end of the period into accounts receivable or cash.  h. Total asset turnover—net sales divided by average total assets; describes the ability to use assets to generate sales. |
| B. Solvency |
| 1. *Solvency* refers to a company’s long-run financial viability and its ability to cover long-term obligations. *Capital structure* is one of the most important components of solvency analysis.  2. *Capital structure* refers to a company’s sources of financing.  3. Ratios in this block: |
| a. Debt ratio—total liabilities divided by total assets.   1. Equity ratio—total stockholders’ equity divided by total assets; compliment of debt ratio. 2. Debt-to-equity ratio—total liabilities divided by total equity. |
| *Note*: A company is considered less risky if its capital structure (equity and long-term debt) is composed more of equity. *Financial leveraging*, the inclusion of debt, can increase return to stockholders. |
| d. Times interest earned—income before interest expense and income taxes divided by interest expense; reflects the risk of repayments with interest to creditors**.** |
| C. Profitability |
| 1. *Profitability* refers to a company’s ability to generate an adequate *return* on invested capital.  2. *Return* is judged by assessing earnings relative to the level and sources of financing.  3. Profitability is also relevant to solvency. |
| 4. Ratios in this block:  a. Profit margin—net income divided by net sales; describes the ability to earn a net income from sales.  b. Return on total assets—net income divided by average total assets; a summary measure of operating efficiency, comprises profit margin and total asset turnover.  c. Return on equity—net income divided by average total equity; measures the success of a company in earning net income for its stockholders. |
| D. Market Prospects |
| 1. Market measures are useful for analyzing corporations with publicly traded stock.  2. Market measures use stock price in their computation.  3. Ratios in this block: |
| a. Price-earnings ratio—market price per share of common stock divided by earnings per share; used to evaluate the profitability of alternative common stock investments.  b. Dividend yield—annual cash dividends paid per share of stock divided by market price per share; used to compare the dividend paying performance of different investment alternatives. |
| 1. Summary of Ratios Exhibit 17.16 in the text sets forth the names of each of the common ratios by category, and includes the formula and a description of what is measured by each ratio. |
| **V. Decision Analysis—Analysis Reporting** |
| Goal of financial statement analysis report is to reduce uncertainty through rigorous and sound evaluation. A good analysis report usually consists of six sections:   1. Executive summary 2. Analysis overview 3. Evidential matter 4. Assumptions 5. Key factors   6. Inferences |
| **VI. Sustainable Income—Appendix 13A** | |
| When a revenue and expense transactions are from normal, continuing operations, a simple income statement is adequate. When activities include events that are not normal, itmust disclose this information by separating the income statement into different sections as follows (A-D): | |
| 1. Continuing Operations Reports the revenues, expenses, and income generated by the company’s continuing operations. 2. Gains and losses that are normal and frequent are reported as part of continuing operations. 3. Gains and losses that are either unusual and/or infrequent are reported as part of continuing operations but after the normal revenues and expenses. 4. Note that FASB no longer allows extraordinary items.   B. Discontinued Segments   1. A *business segment* is a part of a company’s operations that serves a particular line of business or class of customers.   2. Section reports: | |
| a. Income (loss) from operating the discontinued business segment for the current period prior to disposal (net of taxes).  b. Gain or loss on disposal of the segment (net of related income tax effects). | |
| C. Earnings per Share – | |
| 1. Final section of income statement 2. Reported for both continuing operations and discontinued segments (where both exist). | |
| D. Changes in Accounting Principles | |
| 1. The *consistency principle* directs a company to apply the same accounting principle across periods. Changes from one accounting principles to another (Example: LIFO to FIFO) are acceptable if justified as improvements in financial reporting.  2. A footnote would describe change and why it is an improvement.  3. Requires *retrospective application* (application of new accounting principle to prior periods as if that principle had always been used). | |