Principles of Accounting II
Lesson #5

Financial Statement Analysis

By Laurie L. Swanson

Click the button below to navigate to the next slide.
Financial Statement Analysis

The process of analyzing businesses to determine if the business is financially stable, solvent, and profitable.
Horizontal Analysis

Comparison of income statements or balance sheets to determine both dollar change and percent change. The comparison may be between accounting periods within the same company or between competitor companies.
Dollar change analysis is horizontal analysis in which the amount of dollar change is calculated between the analysis period (usually the current period) and the base period (the beginning point used for comparison purposes).

\[ \text{Dollar Change} = \text{Analysis Period Amount} - \text{Base Period Amount} \]
Percent Change Analysis

Percent change analysis is horizontal analysis in which the change is calculated as a percentage of the base period. Financial statements prepared in percents are also known as common-size financial statements. Preparing common-size financial statements provides for more accurate data comparison by using a common base.

\[
\text{Percent Change} = \left( \frac{\text{Analysis Period Amount} - \text{Base Period Amount}}{\text{Base Period Amount}} \right) \times 100
\]
Vertical analysis is used to assess individual items on financial statements as a proportion of a specific base amount. Vertical analysis is most frequently used in the preparation of common-size financial statements.
Common-Size Financial Statements

Financial statements in which each item is shown as a percent of a whole are known as *common-size financial statements*. Preparing common-size financial statements provides for more accurate data comparison by using a common base and helps to emphasize the relative importance of each item on the financial statement out of the base.

When preparing common-size income statements, the base is **Net Income**. When preparing common-size balance sheets, the base in **Total Assets**.
Example of Common-Size Balance Sheet

Below is an example of a common-size balance sheet based on data from Exercise 17-7 in your *Fundamental Accounting Principles* text. Both the dollar value and percent are shown in the example as well as the calculation of the percentage. Notice that each line item is calculated as a percentage of total assets.

<table>
<thead>
<tr>
<th>Sanderson Company</th>
<th>Common-Size Balance Sheet</th>
<th>December 31, 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dollar</td>
<td>Common-Value</td>
</tr>
<tr>
<td></td>
<td>Value</td>
<td>Size</td>
</tr>
<tr>
<td>Cash</td>
<td>30,800</td>
<td>5.9%</td>
</tr>
<tr>
<td>Accounts receivable, net</td>
<td>88,500</td>
<td>17.1</td>
</tr>
<tr>
<td>Merchandise inventory</td>
<td>111,500</td>
<td>21.5</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>9,700</td>
<td>1.9</td>
</tr>
<tr>
<td>Plant assets, net</td>
<td>277,500</td>
<td>53.6</td>
</tr>
<tr>
<td>Total assets</td>
<td>$518,000</td>
<td>100.00%</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>128,900</td>
<td>24.90%</td>
</tr>
<tr>
<td>Long-term notes payable secured by</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mortgages on plant assets</td>
<td>97,500</td>
<td>18.8</td>
</tr>
<tr>
<td>Common stock, $10 par value</td>
<td>162,500</td>
<td>31.4</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>129,100</td>
<td>24.9</td>
</tr>
<tr>
<td>Total liabilities and equity</td>
<td>$518,000</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
Ratio Analysis

Ratio analysis is one of the most valuable tools in financial analysis. Ratios are calculated using data from financial statements. Various ratios can be computed to provide data on a company’s liquidity, solvency, profitability, and market prospects.

Having financial data in ratio format makes comparisons within a company as well as between companies more meaningful.
Ratio Analysis: Formulas and Interpretations

See page 705 of your textbook for the formulas used for common ratio calculations. Information on interpreting the ratios can be found in the Ratio Analysis section of Chapter 17 of your text as well as on the Ratio Analysis handout attached to Lesson 5.
Classification by *Behavior*

Costs can be

- **Fixed** – a cost which does not change as the volume of activity (production) changes
- **Variable** – a cost which changes with changes in the volume of activity
- **Mixed** – a cost which has both fixed and variable components
Classification by Traceability

Costs can be

- **Direct** – a cost which is incurred for the benefit of one specific product (*cost object*)
- **Indirect** – a cost which is incurred for the benefit of more than one cost object or which cannot be easily or efficiently traced to a specific cost object
Classification by Controllability

Costs can be

- **Controllable** – a cost which can be affected (controlled) at the hierarchical level which is being measured

- **Uncontrollable** – a cost which cannot be affected (controlled) at the hierarchical level which is being measured
Classification by Relevance

Costs can be

- **Sunk** – a cost which has already been incurred and cannot be avoided or changed regardless of future actions
- **Out-of-pocket** – a cost which requires future cash outlays
- **Opportunity** – a cost measured as the loss of potential benefits by choosing one course of action over another
Classification by Function

Costs can be

- **Product** – a cost which is necessary to produce a finished product
- **Period** – a cost which is necessary to run the business during a specified fiscal period
Primary Classifications

The three cost classifications we will focus on in our computations are:

- Variable vs. Fixed
- Direct vs. Indirect
- Product vs. Period
Check Your Comprehension

Minchoy Company manufactures kitchen cabinets. Check your comprehension of the ways in which costs can be classified by identifying the appropriate classification for the cost items listed on the following slides for Minchoy Company.
Check Your Comprehension - Classification by Behavior

Variable vs. Fixed

- Variable costs change with volume; fixed costs stay constant within a relevant range of activity

Wood used in producing cabinets

Variable

Fixed

Click the button that matches your classification for the item listed.
Correct!

The amount of wood used in producing cabinets would vary with the number of cabinets produced.
Think it Through

The amount of wood used in producing cabinets would vary with the number of cabinets produced; therefore, this would be classified as a variable cost.
Check Your Comprehension - Classification by Behavior

Variable vs. Fixed

- Variable costs change with volume; fixed costs stay constant within a relevant range of activity

Cabinet pulls

[Variable] [Fixed]

Click the button that matches your classification for the item listed.
Correct!

The number of cabinet pulls used would **vary** with the number of cabinets produced.
Think it Through

The number of cabinet pulls used would vary with the number of cabinets produced, therefore, cabinet pulls used is a variable cost. Study this concept some more.

Try Another Classification
Check Your Comprehension - Classification by Behavior

Direct vs. Indirect

- Direct costs can be traced to a specific cost object; indirect costs benefit more than one cost object.

Paint used on cabinets

Click the button that matches your classification for the item listed.
Correct!

Since it would be difficult to trace the exact amount of paint used on any given cabinet, this cost would be classified as indirect.
Think it Through

This is a tough one. The amount of paint used on any given cabinet would be difficult to trace, therefore, paint would be considered an indirect cost.

Try Another
Check Your Comprehension - Classification by Behavior

**Direct vs. Indirect**

- Direct costs can be traced to a specific cost object; indirect costs benefit more than one cost object.

*Cabinet pulls*

Click the button that matches your classification for the item listed.
Correct!

Since a specific cabinet pull can be traced to a specific cabinet, this would be classified as a direct cost.
Think it Through

Since a specific cabinet pull can be traced to a specific cabinet, this would be classified as a direct cost.

Try Another Classification
Check Your Comprehension - Classification by Behavior

Product vs. Period

- Product costs are incurred in producing a product or providing a service; period costs are costs incurred in operating a business.

Rent expense on administrative offices

Click the button that matches your classification for the item listed.
Correct!

Any administrative expense is considered a **period** cost. This cost cannot be traced to a product.
Think it Through

Any administrative expense is considered a *period* cost. This cost cannot be traced to a product.

Try Another
Check Your Comprehension - Classification by Behavior

Product vs. Period

- Product costs are incurred in producing a product or providing a service; period costs are costs incurred in operating a business.

Cabinet pulls

Click the button that matches your classification for the item listed.
Correct!

Because cabinet pulls are used in a finished product, they are considered a product cost.
Think it Through

Because cabinet pulls are used in a finished product, they are considered a **product** cost. Keep working on this concept.
Cost Classifications

Remember that costs can be categorized based on any combination of the classifications discussed above.
End of Lesson 5 Presentation

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