Basic Financial Statement Analysis
(It’s not as scary as you think!)

A Peer-Reviewed Publication
Written by Kathryn Franzone, MAFM

Abstract
Nothing can strike fear into the hearts of non-financial managers like the term “Financial Statements.” However, in order to run a successful business, it is essential to know how to read and interpret your practice’s financial statements. These documents contain valuable information about the financial position and financial health of your business. With a little background knowledge and some simple calculations, you can be on your way to a better understanding of this valuable information.

This course will show you what a balance sheet and income statement look like. It will help you to recognize the various accounts listed on the statements and explain how to use that information to gain an understanding of the practice’s financial performance and position.

Educational Objectives:
At the conclusion of this educational activity participants will be able to:
1. Identify a balance sheet and income statement.
2. Analyze information obtained from financial statements using basic financial ratios.
3. Implement financial evaluations in the dental practice.

Author Profile
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Author Disclosure
Kathryn Franzone has no commercial ties with the sponsors or the providers of the unrestricted educational grant for this course.

Publication date: Aug. 2014
Expiration date: July 2017
This educational activity was developed by PennWell’s Dental Group with no commercial support.

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Abstract
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This course will show you what a balance sheet and income statement look like. It will help you to recognize the various accounts listed on the statements and explain how to use that information to gain an understanding of the practice’s financial performance and position.

What exactly is accounting?
While knowing all of the details of accounting isn’t necessary to gain an understanding of financial statements, there are a few things you should know. In its most basic form, accounting is the recording of business transactions and their dollar amounts. In the United States, all accounting is done according to Generally Accepted Accounting Principles, or GAAP. It is these principles that dictate when, where and how each transaction should be recorded and subsequently reported on the financial statements. There are three basic financial statements: the balance sheet, the income statement and the statement of cash flows. This course will focus on the balance sheet and income statement.

What is a Balance Sheet?
The Balance Sheet, also called a statement of financial position, is a summary of an organization’s assets, liabilities and equity as of a specific date. It is based on the fundamental accounting equation Assets = Liabilities + Owners’ Equity. This equation must always be in balance. For example, if you take out a loan to buy new equipment, your assets will go up and your liabilities will go up as well. Similarly, if you use cash to buy new equipment, their corresponding accounts will increase and decrease accordingly, keeping the equation in balance.

Assets are things that an organization owns. They are listed on the balance sheet according to their liquidity, or how quickly they can be converted into cash. Liabilities are amounts that an organization owes to someone else, such as vendors and banks. They are listed according to when they are due, with the most current liabilities first. Stockholders’ equity, also called owners’ equity, is the amount that would remain if all liabilities were paid using the organization’s assets. One important thing to know about stockholders’ equity is that it does not necessarily represent the value of the company.

What is an Income Statement?
The Income Statement, also called a Profit & Loss statement (P&L), provides information about how the company performed financially over a specific period of time. It can be used to determine profitability, how credit-worthy the company is and to make predictions about future financial performance based on past information. GAAP mandates that public companies use accrual-based accounting and complete their financial statements accordingly. In accrual-based accounting revenues are recorded when they are earned, not necessarily when they are received. Similarly, expenses are recorded when they are incurred, not when they are paid. However, many small, private businesses including dental practices, keep their records on a cash basis and record revenues when they are received and expenses when they are paid, not necessarily when they

Figure 1. Balance sheet

<table>
<thead>
<tr>
<th>Mo-Lar Dental</th>
<th>12/31/2013 and 12/31/2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Current Assets</td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>14,000     12,000</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>30,000     18,000</td>
</tr>
<tr>
<td>Inventory</td>
<td>5,000      3,000</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>1,000      2,000</td>
</tr>
<tr>
<td><strong>Total Current Assets</strong></td>
<td>50,000     35,000</td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>150,000    100,000</td>
</tr>
<tr>
<td>Buildings</td>
<td>120,000    100,000</td>
</tr>
<tr>
<td>Equipment</td>
<td>50,000     20,000</td>
</tr>
<tr>
<td>Less: Accumulated depreciation</td>
<td>(25,000)  (20,000)</td>
</tr>
<tr>
<td><strong>Total PP&amp;E</strong></td>
<td>295,000    200,000</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>345,000    235,000</td>
</tr>
<tr>
<td><strong>Liabilities and Stockholders’ Equity</strong></td>
<td></td>
</tr>
<tr>
<td>Current Liabilities</td>
<td></td>
</tr>
<tr>
<td>Current portion of long-term debt</td>
<td>7,000     5,000</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>15,000     11,000</td>
</tr>
<tr>
<td>Notes payable</td>
<td>12,000     9,000</td>
</tr>
<tr>
<td><strong>Total Current Liabilities</strong></td>
<td>34,000    25,000</td>
</tr>
<tr>
<td>Long-Term Liabilities</td>
<td></td>
</tr>
<tr>
<td>Long-term debt</td>
<td>200,000    150,000</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>234,000   175,000</td>
</tr>
<tr>
<td>Stockholders’ Equity</td>
<td></td>
</tr>
<tr>
<td>Common stock</td>
<td>40,000     25,000</td>
</tr>
<tr>
<td>Paid in capital in excess of par</td>
<td>22,000     5,000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>40,000     30,000</td>
</tr>
<tr>
<td><strong>Total Stockholders’ Equity</strong></td>
<td>111,000   60,000</td>
</tr>
<tr>
<td><strong>Total Liabilities and Stockholders’ Equity</strong></td>
<td>345,000   235,000</td>
</tr>
</tbody>
</table>
are earned and incurred. While this doesn't change the look of the income statement, it is something you want to keep in mind when analyzing the statements.

One thing that will change the look of the income statement is the nature of the business. The income statement for a manufacturing company will look slightly different from that of a service company. Accounts such as "cost of goods sold" are not applicable to service industries and are therefore not on the income statement. The income statement below is an example of an income statement for a company in the service industry.

Figure 2. Income statement

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Patient revenue</td>
<td>1,276,433.98</td>
</tr>
<tr>
<td>Salaries expense</td>
<td>(307,884.29)</td>
</tr>
<tr>
<td>Payroll tax expense</td>
<td>(108,443.77)</td>
</tr>
<tr>
<td>Benefits expense</td>
<td>(13,220.00)</td>
</tr>
<tr>
<td>Professional supplies expense</td>
<td>(44,834.04)</td>
</tr>
<tr>
<td>Laboratory fees expense</td>
<td>(76,935.21)</td>
</tr>
<tr>
<td>Marketing expense</td>
<td>(41,263.66)</td>
</tr>
<tr>
<td>Rent expense</td>
<td>(48,000.00)</td>
</tr>
<tr>
<td>General &amp; administrative expense</td>
<td>(100,433.99)</td>
</tr>
<tr>
<td>Depreciation expense</td>
<td>(17,883.02)</td>
</tr>
<tr>
<td>Interest expense</td>
<td>(4,493.09)</td>
</tr>
<tr>
<td>Income before income taxes</td>
<td>513,066.91</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>(205,220.76)</td>
</tr>
<tr>
<td>Net Income from Operations</td>
<td>307,840.15</td>
</tr>
</tbody>
</table>

Mo-Lar Dental’s current ratio improved between 2012 and 2013, indicating that their ability to pay short term debt has improved as well. A current ratio of 1.47 means that for every $1.00 of current liabilities Mo-Lar has, it has $1.47 of assets to cover it (or pay it). If the dental practice industry average was 1.15 and Mo-Lar had a current ratio of 1.47, this would indicate that Mo-Lar was in a better position to pay its current obligations than the average dental practice.

The acid-test ratio, sometimes called the quick ratio, is similar to the current ratio. The acid-test ratio, however, excludes inventory and prepaid accounts in its figure for current assets. This is because these items are the least liquid of the current assets. In other words, they are the most difficult to turn into cash. The acid-test ratio only uses the company’s most liquid assets to determine how well they would be able to meet their short-term obligations.

\[
\text{Acid-test ratio} = \frac{\text{Cash equivalents} + \text{Marketable securities} + \text{Net receivables}}{\text{Current liabilities}}
\]

In our example, Mo-Lar Dental has no marketable securities, so the calculations would look like this:

- 2013 Acid-test ratio = \((14,000 + 30,000)/34,000 = 1.29\)
- 2012 Acid-test ratio = \((12,000 + 18,000)/25,000 = 1.2\)

The acid-test ratio for Mo-Lar Dental has improved slightly from 2012 to 2013, indicating that for every $1.00 in current liabilities Mo-Lar has, they have an additional $.09 to cover it (1.29 vs. 1.20). Another way to look at the acid-test and current ratios is to compare them to each other. If a company’s acid-test ratio is significantly lower than its current ratio then that indicates that its current assets contain large amounts of inventory and prepaid accounts.

**Activity Ratios**

Activity ratios are used to measure how efficiently an organization uses its assets. They indicate how well management is able to turn assets such as inventory and accounts receivable into cash.

The accounts receivable turnover ratio indicates management’s ability to collect their outstanding accounts receivable.

\[
\text{Accounts receivable turnover} = \frac{\text{Net credit sales}}{\text{Average net receivables}}
\]

Mo-Lar Dental does not list credit sales separately from cash sales on its balance sheet. For our calculations, we will assume that Mo-Lar had $100,000 in sales for 2013 and that 50% of sales are made on credit.

\[
\text{Accounts receivable turnover} = \frac{50,000}{[(30,000 + 18,000)/2]} = 2.08 \text{ times}
\]

With an accounts receivable turnover ratio of 2.08, that means that Mo-Lar Dental collected its accounts receivable roughly two times during the year. We can then take that ratio and divide it into 365 to
determine the average number of days it takes Mo-Lar to collect its accounts receivable. This is the accounts receivable turnover in days.

\[
\text{Accounts receivable turnover in days} = \frac{365}{\text{Receivable turnover}} = 175 \text{ days}
\]

Therefore it takes Mo-Lar Dental, on average, 175 days (or six months) to collect its sales made on credit. It is management’s responsibility to determine what an acceptable accounts receivable turnover ratio is for their organization, however, in general, the higher the ratio is, the better position the organization is in.

**Profitability Ratios**

Profitability ratios use information from both the income statement and the balance sheet to measure whether or not the organization’s efforts to be profitable during a period of time were successful.

Return on total assets measures how well an organization is using its assets in relation to the amount of income it has reported.

\[
\text{Return on total assets} = \frac{\text{Net Income}}{\text{Average total assets}}
\]

Using the information from Great Brushers income statement and assuming they reported an average of $2,000,000 in assets on their balance sheets, the calculation would look like this:

- 2012 Return on total assets = 213,710.83/2,000,000 = 10.7%
- 2013 Return on total assets = 307,840.15/2,000,000 = 13.2%

This means that Great Brushers management is effectively managing their assets in order to produce a profit (return).

**Long-Term Debt-Paying Ability Ratios**

Long-term debt-paying ability ratios determine just that – an organization’s ability to cover their long-term obligations. They are also called solvency ratios, and are the long-term counterparts to liquidity ratios, which measure short-term debt-paying ability.

The debt ratio compares the amount of assets an organization has to the amount of liabilities.

\[
\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}
\]

For Mo-Lar Dental the debt ratio would be:

\[
\text{Debt ratio} = 234,000/395,000 = 59.24\%
\]

Therefore, 59.24% of the company’s assets are financed by liabilities. The higher this ratio, the higher the organization’s degree of leverage and the lower the organization’s solvency, which can lead to financial risk.

**How to Use the Ratios**

Financial ratios can tell you a lot about your business, but simply calculating them isn’t enough. These ratios need to be compared, whether it is intra-company from one period to the next or against industry averages. Industry averages vary greatly between industries, as well as from year to year, so you should consult your accountant to obtain the most current industry averages.

The best way to use financial ratios is to calculate them on a regular and ongoing basis. For example, you may want to start by calculating them quarterly. If you get a result that is worrisome, you could increase the frequency to monthly. The results from each quarter can be compared to previous quarters in the same year to track the progress of the company for that year. They can also be compared to the same time period in previous years, to track changes year to year.

Which financial ratios you should calculate depends highly on your practice and exactly what you want to know. For example, if your practice extends credit to many of its patients, you may want to pay special attention to the accounts receivable turnover ratio. Similarly, if your company has long-term loans on its books that will be coming due soon, you may want to keep an eye on the various liquidity ratios to determine whether or not you will have enough cash to cover the payments.

**An Ongoing Learning Process**

One course can’t teach you everything there is to know about financial statements and how to analyze them. Reading and interpreting the information that is found on the income statement and balance sheet is an ongoing process and can take a long time to master. However, armed with some basic knowledge of the statements and some simple financial ratios that can be calculated using them, you’re on your way to a better understanding of the financial side of your business.

**Author profile**

Kathryn Franzone, MAFM, is a graduate of Keller Graduate School of Management. She has worked in the accounting field for ten years. Kathryn can be reached at kathryn.franzone@gmail.com.

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Questions

1. Accounting in the United States is performed according to:
   a. Federal Accounting Standards
   b. Generally Accepted Accounting Principles
   c. The IRS
   d. Mandatory Financial Rules

2. What fundamental accounting equation is the balance sheet based on?
   a. Assets = Liabilities + Stockholders' Equity
   b. Assets + Liabilities = Stockholders' Equity
   c. Gains - Losses = Revenues
   d. Revenues - Expenses = Income

3. Another name for the Income Statement is:
   a. Cash Receipt Statement
   b. Financial Leverage Statement
   c. Chart of Accounts
   d. Profit & Loss Statement

4. A balance sheet:
   a. presents financial information as of a specific moment in time
   b. presents financial information over a period of time
   c. balances gains and losses
   d. none of the above

5. Liquidity ratios measure:
   a. a company’s ability to pay long-term debts
   b. the amount of a company’s short-term debts versus their long-term debts
   c. a company’s ability to pay short-term debts
   d. the market value of a company

6. If a Drills-R-Us has $20,000 in current assets and $10,000 in current liabilities, what is their current ratio?
   a. 1.2
   b. 0.5
   c. 2.0
   d. .76

7. Activity ratios help to determine:
   a. how efficiently a company uses its assets
   b. the level of business activity during a period of time
   c. when the busiest time of year is for a company
   d. whether or not the company made a profit

8. If a company has average net receivables of $15,000 and net credit sales of $63,000, what is their accounts receivable turnover in days?
   a. 4.2
   b. 93.44
   c. 2.1
   d. 86.90 (63,000 / 15,000 = 4.2; 365 / 4.2 = 86.90)

9. If a company’s debt ratio is high, this indicates:
   a. they do not use financing to purchase assets
   b. that they have recently paid off all of their debt
   c. that a high percentage of their assets are financed by creditors
   d. that they are in bankruptcy

10. Financial ratio analysis:
    a. tells us everything we need to know about a company’s financial position
    b. is a useful tool to help gain understanding of a company’s financial position
    c. is very difficult and must be done by a professional
    d. none of the above

11. Which of the following is not a type of financial ratio:
    a. Liquidity
    b. Profitability
    c. Compatibility
    d. Activity

12. A balance sheet presents financial information:
    a. As of a specific point in time
    b. Spanning a period of time
    c. For three years at a time
    d. One year at a time

13. The income statement presents financial information:
    a. As of a specific point in time
    b. For the last day of the year
    c. For a specific period of time
    d. None of the above

14. What should be done once the financial ratios have been calculated?
    a. Nothing, you’re finished
    b. They should be added together and averaged
    c. They should be compiled in a list
    d. They should be compared to previous periods’ results, industry averages and/or similar businesses' ratios

15. How are assets listed on the balance sheet?
    a. According to their liquidity
    b. According to their value
    c. According to their age
    d. In alphabetical order

16. What is stockholders’ (or owners’) equity?
    a. The value of the company
    b. The amount that would remain after all liabilities were paid using assets
    c. The total value of the company’s assets
    d. The degree of power management has in decision making

17. What is the formula for the debt ratio?
    a. Debt Ratio = Total Liabilities/Total Assets
    b. Debt Ratio = Total Assets – Total Liabilities
    c. Debt Ratio = Net Income – Current Liabilities
    d. Debt Ratio = Current Liabilities/Net Income

18. The bottom line of the income statement tells us:
    a. Sales for the current period
    b. Expenses for the current period
    c. Total debt for the current period
    d. The company’s profit or loss for the period

19. A current ratio less than one could indicate:
    a. The company is in an excellent financial position
    b. The company may have difficulty paying off its current liabilities
    c. The company will not be able to pay off their long-term obligations
    d. The company has an abnormally high amount of assets

20. Why does the acid test ratio exclude inventory and prepaid accounts from the assets portion of the equation?
    a. Because they are not assets
    b. Because they are the least liquid of the current assets
    c. Because their values change too often
    d. None of the above
Basic Financial Statement Analysis (It’s not as scary as you think!)

Name: ____________________________ Title: ____________________________ Specialty: ____________________________

Address: ____________________________ E-mail: ____________________________ Specialty: ____________________________

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Educational Objectives

1. Identify a balance sheet and income statement.
2. Analyze information obtained from financial statements using basic financial ratios.
3. Implement financial evaluations in the dental practice.

Course Evaluation

1. Were the individual course objectives met? Objective #1: Yes No

Please evaluate this course by responding to the following statements, using a scale of Excellent to Poor: 0.

2. To what extent were the course objectives accomplished overall? 1 2 3 4 5

3. Please rate your personal mastery of the course objectives. 1 2 3 4 5

4. How would you rate the objectives and educational methods? 1 2 3 4 5

5. How do you rate the author’s grasp of the topic? 1 2 3 4 5

6. Please rate the instructor’s effectiveness. 1 2 3 4 5

7. Was the overall administration of the course effective? 1 2 3 4 5

8. Please rate the usefulness and clinical applicability of this course. 1 2 3 4 5

9. Please rate the usefulness of the supplemental webigraphy. 1 2 3 4 5

10. Do you feel that the references were adequate? Yes No

11. Would you participate in a similar program on a different topic? Yes No

12. If any of the continuing education questions were unclear or ambiguous, please list them.

13. Was there any subject matter you found confusing? Please describe.

14. How long did it take you to complete this course?

15. What additional continuing dental education topics would you like to see?

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1. 1 2 3 4 5

2. 1 2 3 4 5

3. 1 2 3 4 5

4. 1 2 3 4 5

5. 1 2 3 4 5

6. 1 2 3 4 5

7. 1 2 3 4 5

8. 1 2 3 4 5

9. 1 2 3 4 5

10. 1 2 3 4 5

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