LESSON 5: LEARNING TO SPEAK THE LANGUAGE OF FINANCE

DESCRIPTION

This lesson will teach you what a financial statement is and how to read one.

OBJECTIVES

At the conclusion of this lesson, you should be able to:

- Understand the reason companies create financial statements and how they are used.
- Identify the three primary financial statements (balance sheet, income statement, and statement of cash flows)
- Recognize common sections and items found on financial statements.
- Be able to analyze a company by looking at their financial statements.

LENGTH

Approximately 2 hours, split up into four (4) 40-minute sections.

ABOUT YOUNG INVESTORS SOCIETY

Young Investors Society (YIS) is a non-profit organization dedicated to preparing the next generation of investors. Flagship programs include the YIS Global Stock Pitch Competition, the Dollar-a-Day Challenge with Free Money Match® scholarships and the Certified Young Investment Analyst (CYIA®) Designation. Learn more at https:/www.seedasdan.org/yis/

RESOURCES

- Access to Computers and Internet is preferred, but not required
- Learning Material: https://www.seedasdan.org/yis/– curriculum, videos and lesson plans
- Zacks.com – for company research including ratios and screens

- Morningstar.com – for company financial statements, and key ratios.
- Gurufocus.com for company analysis
- Yahoo Finance and Yahoo Finance App for stock charts and basic company information
- Khan Academy video: https://www.khanacademy.org/economics-finance-domain/core-finance/stock-and-bonds/company-statements-capital-struc/v/gross-and-operating-profit
- Bill Ackman: "Everything You Need to Know About Finance and Investing in Under an Hour" https://www.youtube.com/watch?v=WEDIj9JBTC8
- Seeking Alpha – online portal of stock research reports
- Motley Fool – great daily content and stock picks
- Investopedia.com – the "Wikipedia" of Investing, great online glossary of terms
- YIS Glossary of Terms (full database at younginvestorssociety.org/glossary)
    - http://www.investopedia.com/dictionary/
    - http://www.accountingcoach.com/terms
    - http://www.accountingtools.com/accounting-dictionary/

INTRODUCTION

Suppose a friend came to you and asked you to invest in her new business. She has started a website design business and she would like more money to buy a new computer. Before you decide if you should invest in her business or not, think about the questions you would want to ask her.

What questions did you come up with? Here's a few you might have thought of:

- How much cash does the company already have?
- How much revenue has the company made since it was started? In the past year?
- How much revenue does the company expect to make in the future?
- What has the company spent its cash on in the past?
- Does the company have any debt?

In order to answer these questions, a good place to start would be to look at the company's financial statements.

Learning to read Financial Statements is like learning a new language. If you want to order a good dish in a French Restaurant, you will need to speak French to read the Menu. Similarly with companies, if you want to find a good stock to invest in, you will need to speak the language of finance and read their financial statements. Just like learning any new language, it is difficult at first, but the more you practice, the more fluent you will become!

LESSON

SECTION 1

WHY DO COMPANIES PREPARE FINANCIAL STATEMENTS?

All companies need to keep track of their finances. This means the company is keeping track of all of the money coming in and money going out, as well as other transactions that don't necessarily involve the exchange of money. At the end of each month, quarter (three months), and year, a company will prepare financial statements, which are a summary of all the financial transactions for that period.

For a company that is publicly traded (meaning shares of the company stock are sold on a stock market) it is required that the company prepare and file quarterly and annual financial statements so the government and the public can see how the company is doing.

WHO USES FINANCIAL STATEMENTS?

Lots of different parties will be interested in the financial statements of a company. First, the company's management and board of directors will use the financial statements to track performance. The financial statements show how the company has done in the past, and will help management make decisions about the future.

Lenders (like banks who have made loans to the company) may also want to see the financial statements. Some loans may have certain requirements, such as the company's debt to equity ratio cannot be more than 0.3 in order to receive that loan. Or, the lender may just want to see how much cash the company has to estimate how likely it is the company will be able to pay back the loan and interest in a timely manner.

Investors are also very interested in seeing the financial statements. They are making decisions about whether to buy or sell stock in the company, so they need to know how the company is doing to help inform their decisions.

Can you think of anyone else who might use the financial statements of a company, other than management, banks and investors?

WHAT ARE THE THREE FINANCIAL STATEMENTS?

Let's look at Apple, Inc. to learn about financial statements. There are three primary financial statements, 1) the balance sheet, 2) the income statement, and 3) the statement of cash flows. *See below to find Apple's 2014 financial statements. Also found online at*

http:*//www.apple.com/pr/library/2014/10/20Apple-Reports-Fourth-Quarter-Results.html*

THE BALANCE SHEET

Let's start by watching this video, made by Wall Street Survivor, a partner company of YIS.

https://www.youtube.com/watch?v=Gyu5LnWSn5Y

The balance sheet (above) is a snapshot of the business at a single point in time. Think of it like a photograph. It is a picture of what the business looks like on the day the picture is taken. The balance sheet shows a snapshot of the company's assets (its resources that it expects to create value in the future), liabilities (the loans and other obligations due to others), and owners' equity (also known as shareholders' equity or stockholders' equity—the stake that the owners or investors have in the business).

Apple, Inc. prepared a balance sheet for the year ended September 27, 2014. Here are some of the assets the balance sheet shows:

$13.8 billion Cash (in finance terms, cash is not just dollar bills, but all money held in checking accounts, savings accounts, etc. plus actual dollar bills on hand, if any)

$17.5 billion Accounts Receivable (this means someone else bought something from Apple, but instead of paying right away, they still owe the money, and Apple is expecting to receive it in the future)

$2.1 billion Inventories (these are the Macs and iPhones and iPads that Apple currently has in warehouses and stores, intended to be sold to customers)

$20.6 billion Property, plant and equipment (this is the amount of land, buildings, and machinery that the company owns and uses to manufacture and sell goods)

Here are some of the liabilities the balance sheet shows:

$30.2 billion Accounts Payable (this is the flip side of Accounts Receivable, so in this case, Apple has bought something from others and has promised to pay them for it in the future)
$18.5 billion Accrued Expenses (this could include things like the obligation to pay interest to lenders and taxes to the government)
$29.0 billion Long-term Debt (this means loans from a bank)

Here are some of the equity balances the balance sheet shows:

$23.3 billion Common Stock (this is the stock sold to investors on the market)
$87.2 billion Retained Earnings (this is the amount of profits made in previous years that has been reinvested in the business to help it grow, rather than distributed to stockholders as dividends)

Apple Inc.
UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS
(In millions, except number of shares which are reflected in thousands and par value)

	September 27, 2014	September 28, 2013
ASSETS:		
Current assets:		
Cash and cash equivalents	$ 13,844	$ 14,259
Short-term marketable securities	11,233	26,287
Accounts receivable, less allowances of $86 and $99, respectively	17,460	13,102
Inventories	2,111	1,764
Deferred tax assets	4,318	3,453
Vendor non-trade receivables	9,759	7,539
Other current assets	9,806	6,882
Total current assets	68,531	73,286
Long-term marketable securities	130,162	106,215
Property, plant and equipment, net	20,624	16,597
Goodwill	4,616	1,577
Acquired intangible assets, net	4,142	4,179
Other assets	3,764	5,146
Total assets	$ 231,839	$ 207,000
LIABILITIES AND SHAREHOLDERS' EQUITY:		
Current liabilities:		
Accounts payable	$ 30,196	$ 22,367
Accrued expenses	18,453	13,856
Deferred revenue	8,491	7,435
Commercial paper	6,308	0
Total current liabilities	63,448	43,658
Deferred revenue – non-current	3,031	2,625
Long-term debt	28,987	16,960
Other non-current liabilities	24,826	20,208
Total liabilities	120,292	83,451
Commitments and contingencies		
Shareholders' equity:		
Common stock and additional paid-in capital, $0.00001 par value: 12,600,000 shares authorized; 5,866,161 and 6,294,494 shares issued and outstanding, respectively	23,313	19,764
Retained earnings	87,152	104,256
Accumulated other comprehensive income/(loss)	1,082	(471)
Total shareholders' equity	111,547	123,549
Total liabilities and shareholders' equity	$ 231,839	$ 207,000

ESSENTIAL QUESTIONS TO DISCUSS:

1. *Choose someone to present to the class: Why a balance sheet is important?*
2. *All things equal, would you rather have more liabilities or less?*

SECTION 2
THE INCOME STATEMENT

Next, let's watch this video on the Income Statement by Wall Street Survivor.

https://www.youtube.com/watch?v=2RupCSFcY7w

The income statement shows a business's performance over a period of time, such as a year. Think of it like a video. It shows what happens to the business over time. The income statement shows how much revenue the company made over the year, how much it cost to sell its main products, how much it cost to pay its employees over the year, and how much it owed in interest and taxes for the year. On a very basic level, if the company makes more revenue than it spends in costs, it is a profitable business. If the company's costs are greater than its revenues, then it is not a profitable business.

It is always good to remember not to look at just one financial statement and think it tells the whole story of the business. A good investor should learn to read all the financial statements, and look at trends occurring over time, from balance sheet to balance sheet and from income statement to income statement.

Apple Inc.
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In millions, except number of shares which are reflected in thousands and per share amounts)

	Three Months Ended		Twelve Months Ended	
	September 27, 2014	September 28, 2013	September 27, 2014	September 28, 2013
Net sales	$ 42,123	$ 37,472	$ 182,795	$ 170,910
Cost of sales [1]	26,114	23,601	112,258	106,606
Gross margin	16,009	13,871	70,537	64,304
Operating expenses:				
Research and development [1]	1,686	1,168	6,041	4,475
Selling, general and administrative [1]	3,158	2,673	11,993	10,830
Total operating expenses	4,844	3,841	18,034	15,305
Operating income	11,165	10,030	52,503	48,999
Other income/(expense), net	307	113	980	1,156
Income before provision for income taxes	11,472	10,143	53,483	50,155
Provision for income taxes	3,005	2,631	13,973	13,118
Net income	$ 8,467	$ 7,512	$ 39,510	$ 37,037
Earnings per share:				
Basic	$ 1.43	$ 1.19	$ 6.49	$ 5.72
Diluted	$ 1.42	$ 1.18	$ 6.45	$ 5.68
Shares used in computing earnings per share:				
Basic	5,933,845	6,329,139	6,085,572	6,477,320
Diluted	5,972,082	6,363,919	6,122,663	6,521,634
Cash dividends declared per common share	$ 0.47	$ 0.44	$ 1.82	$ 1.64
[1] Includes share-based compensation expense as follows:				
Cost of sales	$ 116	$ 88	$ 450	$ 350
Research and development	$ 314	$ 209	$ 1,216	$ 917
Selling, general and administrative	$ 332	$ 258	$ 1,197	$ 986

Apple, Inc. prepared an Income Statement for the year ended September 27, 2014. The income statement shows that Apple has sales of $182.8 billion during that year. That is how much revenue Apple made from all its sales of computers and phones and apps and songs on iTunes and everything else it sells. This is an increase from $170.9 billion in 2013 and $156.5 billion in 2012.

Next, the Income Statement shows expenses, starting with Cost of Sales of $112.3 billion. This means in order to make all the products it sold for that $182.8 billion revenue, it cost Apple $112.3 billion. Other expenses include $6.0 billion research and development costs, $12.0 billion selling, general, and administrative costs, and $14.0 billion tax expense.

Finally, the Income Statement shows Net Income, which is known as the bottom line because – you guessed it! – it appears at the bottom of the Income Statement. Apple's Net Income for the year ended September 27, 2014, was $39.5 billion.

ESSENTIAL QUESTIONS TO DISCUSS:

1. *Choose someone to present to the class: Why the income statement is important?*
2. *Which two lines on the income statement do you think are the most important?*

THE STATEMENT OF CASH FLOWS

The third of the primary financial statements is the statement of cash flows. The statement of cash flows shows how much cash came into the business and how much cash went out of the business. It's important to note here that when we use the term cash in the finance world, we mean not only dollar bills, like you might think of, but also checks and electronic transfers and the balance in the bank account. In fact, most businesses will do a lot of their transactions through electronic transactions, but we still call this cash. Think of cash as just meaning all forms of money.

https://www.youtube.com/watch?v=9DcRJD9rbbQ

Below is a snapshot of Apple's Statement of Cash Flows.

Cash generated from operating activities, is one of the most important metrics to monitor. Think of this as earnings or net profit, but the actual cash earnings. Many times if a company has big non-cash charges or gains in a year, the more accurate profit number is found on the Cash Generated from Operating Activities.

The other key metric to look out for in the Statement of Cash Flows is the Capital Expenditure (also referred to CAPEX), or the **Payments for acquisition of property, plant and equipment**. Total for this category is the cash used to invest in the business.

One of the best measures of the profitability of a business, according to Warren Buffett and many great investors is the Free Cash Flow.

This is calculated by:

Net Income + Depreciation – CAPEX = Free Cash Flow. This is how much cash the business generated that year.

Activity:

Can you calculate the Free Cash Flow for Apple using the statements in this lesson? **Hint, some of the metrics are found on the Income Statement and some are found on the Statement of Cash Flows.*

Apple Inc.
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	Twelve Months Ended	
	September 27, 2014	September 28, 2013
Cash and cash equivalents, beginning of the year	$ 14,259	$ 10,746
Operating activities:		
Net income	39,510	37,037
Adjustments to reconcile net income to cash generated by operating activities:		
Depreciation and amortization	7,946	6,757
Share-based compensation expense	2,863	2,253
Deferred income tax expense	2,347	1,141
Changes in operating assets and liabilities:		
Accounts receivable, net	(4,232)	(2,172)
Inventories	(76)	(973)
Vendor non-trade receivables	(2,220)	223
Other current and non-current assets	167	1,080
Accounts payable	5,938	2,340
Deferred revenue	1,460	1,459
Other current and non-current liabilities	6,010	4,521
Cash generated by operating activities	59,713	53,666
Investing activities:		
Purchases of marketable securities	(217,128)	(148,489)
Proceeds from maturities of marketable securities	18,810	20,317
Proceeds from sales of marketable securities	189,301	104,130
Payments made in connection with business acquisitions, net	(3,765)	(496)
Payments for acquisition of property, plant and equipment	(9,571)	(8,165)
Payments for acquisition of intangible assets	(242)	(911)
Other	16	(160)
Cash used in investing activities	(22,579)	(33,774)
Financing activities:		
Proceeds from issuance of common stock	730	530
Excess tax benefits from equity awards	739	701
Taxes paid related to net share settlement of equity awards	(1,158)	(1,082)
Dividends and dividend equivalents paid	(11,126)	(10,564)
Repurchase of common stock	(45,000)	(22,860)
Proceeds from issuance of long-term debt, net	11,960	16,896
Proceeds from issuance of commercial paper, net	6,306	0
Cash used in financing activities	(37,549)	(16,379)
Increase/(decrease) in cash and cash equivalents	(415)	3,513
Cash and cash equivalents, end of the year	$ 13,844	$ 14,259
Supplemental cash flow disclosure:		
Cash paid for income taxes, net	$ 10,026	$ 9,128
Cash paid for interest	$ 339	$ 0

SECTION 3: Ratios: What they are and why they matter

As a potential investor, how do you measure the efficiency and effectiveness of the company's management? How do you know they will be able to provide an adequate return? Will the potentially run out of cash and have to become more leveraged (take out additional debt)? An insight into the company can be obtained through looking at certain ratios and then looking at those trends. Below is a table of financial ratios with an explanation of the ratio as well as how to calculate that ratio.

Definitions:

- Current Asset/Liability – An asset that will be used to generate cash or a liability that will need to be paid within the next 12 months.
- Accounts Receivable (A/R) – Amount customers owe the Company
- Fixed Assets – Long-term assets such as property, plant, and equipment

Ratio Category	Ratio	Explanation	Calculation
Liquidity	Current	Measures the Company's ability to cover its liabilities for the next 12 months. If this is greater than 1, then the Company should generate enough cash to cover its obligations for the next 12 months. If it is lower than 1, then the Company will likely need to take on new debt or equity to finance their operations.	Current Assets / Current Liabilities
Liquidity	Quick	Sometimes inventory can be difficult to sell. This ratio measures assets that can readily be turned into cash to cover current obligations.	(Current Assets – Inventory) / Current Liabilities
Asset Efficiency	Receivables Turnover	Indicates how quickly the Company collects on its accounts receivable. The higher the number, the better the Company is at collecting customer payments.	Annual Sales / Accounts Receivable
Asset Efficiency	Days Sales in A/R	Measures, in days, how long it takes the Company to collect on customer accounts.	Accounts Receivable / Sales / 365
Asset Efficiency	Inventory Turnover	Measures how quickly is the Company able to sell its inventory. A low number, depending on the industry, could mean the Company is struggling to sell its inventory.	Cost of Goods Sold / Average Inventory
Asset Efficiency	Average Days in Inventory	Measures, in days, how long it takes a Company to sell its inventory.	Average Inventory /

			Cost of Goods Sold / 365
Asset Efficiency	Fixed-Asset Turnover	Measures how effectively the Company uses its fixed assets to generate income.	Sales / Fixed Assets
Leverage	Debt	Measures how much debt it takes to generate assets.	Total Debt / Total Assets
Leverage	Interest Coverage	Measures if a Company will be able to meet its interest payments on its debt.	Earnings Before Interest and Taxes / Interest Charges
Profitability	Gross Profit Margin (Margin)	Measures the amount of income the Company generates upon the sale of a product.	(Sales – Cost of Goods Sold) / Sales
Profitability	Return on Assets	Measures the Company's effectiveness of using their assets to generate income.	Net Income / Total Assets
Profitability	Return on Equity	Measures the Company's effectiveness of using their shareholder equity to generate income.	Net Income / Total Equity

There are some limitations to using ratios:

1. To be meaningful, ratios must be compared to historical values for the same company or compared to a benchmark (i.e. industry standard or another similar company).
    a. If a company has an ROA of 2.5%, is this good? The answer is that it depends. If the company has had ROA in prior years lower than 2.5%, then the 2.5% show an improvement. If the industry average is 5.0%, then the company is underperforming. You must also take into consideration the life-cycle of the company. If the company is in its early years, the ratios will be different than in the company's maturing years.
2. The ratio must consider the company's operations and industry
    a. If a company has an ROA of 2.5%, is this good? The answer is that it depends. If the company is in the banking industry, this is a very good ratio. If the company is in the tech industry, this ratio already shows doom for the company.
3. Single ratios do not tell the company's story but a combination of appropriate ratios can begin to paint a picture.
    a. A company could have a great quick ratio but a horrible ROE.
4. The correct ratios must be used.
    a. Imagine a tech company that only specializes in a certain software product. As there is no manufacturing, using the fixed-asset turnover ratio would not be a good ratio. Better ratios to use would be Days Sales in A/R and Gross Margin.

Activity

Using the financial statements included on page 58 of the Stock Investing 101 eBook, complete the following calculations for the following periods:

Ratio	3 Months Ended 9/27/2014	3 Months Ended 9/28/2013	12 Months Ended 9/27/2018	12 Months Ended 9/28/2013
Gross Margin				

Using the financial statements included on page 66 of the Stock Investing 101 eBook, calculate 5 financial ratios and write what the indicate about the Company.

Ratio Name	Calculation	What does this say about the Company?

SECTION 4

HOW DO I FORECAST REVENUES OF A COMPANY?

In its simplest form, future revenue can be calculated by multiplying the average selling price of the company's product by the number of expected products sold. However, forecasting revenue isn't that simple and can involve considering many different factors. For instance, Apple would see increased revenue if it sold its iPhone for more money per unit, but only if the number of phones sold didn't decrease as a result of the price increase. **Apple would love for both the price per unit and the number of units sold to increase**, but these two things can move in opposite directions as people tend to buy fewer units as the price of that unit increases. Apple can also increase the number of units sold by expanding geographically. If it were to begin selling phones in a new country it hadn't previously sold in, that would add revenue. There can be other offsetting factors too, however. When Apple first introduced the iPhone, iPods were quite popular, but when people began to buy iPhones, which included integrated digital music players, they began buying fewer iPods. This effect made it so that while Apple gained lots of revenue from the sale of its iPhones, it began losing its normal iPod revenue.

Companies can also gain additional revenue by **taking market share from competitors**. If, for instance, the number of smartphones sold in the world is 1.2 billion per year and Apple sells 50% of those this year and 60% next year, it will see a revenue increase, all else being equal. This means Apple sold 600 million phones (50% of 1.2B) this year and will sell 720 million phones (60% of 1.2B) next year. This is known as "taking market share," as Apple essentially took a bigger piece of the pie by going from 50% of the market to 60% of the market. Another way a company can grow revenue is by being in a market where the market itself is growing. For instance, if the market (i.e, the number of smartphones sold) grew by 10% from 1.2 billion phones to 1.32 billion phones, even if Apple retained a 50% market share, it would still sell 10% more phones.

Companies can also grow revenues through opening or building new stores, acquiring other companies, etc.

To forecast the revenues of a company, one must evaluate the industry, the company, and its competitors. Looking at a company's revenue growth rate for many years is a good start. However, you must be careful not to assume that an abnormal period of time is in fact normal. For instance, Apple's revenue growth rate was well over 10% per year since the early 2000s, and it even reached rates of over 50% after the company released the iPhone and iPad, but by 2013 Apple was a very large company with no new products in a long time, resulting in a growth rate of under 10% for the year. Had the analyst assumed that the company would grow revenue at 50% a year for countless years to come, he/she would've been in for a rude awakening. In conclusion, forecasting revenue involves a lot of different variables, but a savvy analyst who has done his/her homework should be able to generate a good forecast in time.

INDIVIDUAL ACTIVITY: FORECAST REVENUES

Chose a company that is on your list from Lesson 4 that you can up with from screens or from a grocery store visit, or from other sources:

- How fast has this company been growing revenues over the past 5 years?
- How fast did this company grow revenues last year?
- Has this company been growing faster or slower than its competitors?
- What do you expect they will grow at over the next 5 years?

Use resources such as Morningstar.com, Zacks.com and Yahoo.Finance to research these metrics.

- Chose a couple of students to present to the class.

HOW DO I FORECAST MARGINS OF A COMPANY?

When analyzing stocks you will likely review the income statement, balance sheet and statement of cash flows. The income statement provides a financial summary of the operating results of the firm over a period of time such as a quarter or year. The first section of the income statement shows **gross margins**, simply the total revenue (sales) minus the cost of goods sold. Financial companies and service-oriented companies tend to have high gross margins since they often have lower costs of goods sold. Whereas industrial and manufacturing companies have lower gross margins as they have high cost of goods sold.

Does the car manufacturing company Toyota have high or low gross margins? That's right they have low gross margins! Car manufacturing has one of the higher cost of goods sold out of any industry, one car is made up of thousands of parts. Adding up all those parts equals a high cost of goods sold and lower gross margins. Remember the gross margin is simply subtracting the cost of goods sold from the total revenue. Which can be helpful when looking at two companies in the same industry, take Apple versus Samsung.

They both make wonderful cellular phones, who would you guess has higher gross margin?

A. Samsung
B. Apple

Apple has the higher gross margin and why is that important? **Whether they charge a higher price or they have lower cost of goods sold can lead to competitive advantages over the long run**.

Going a step further on the income statement you will notice operating incomes or EBIT. Operating Income divided by total revenues is Operating margin. **Operating margin is a measure of profitability, how much of each dollar of revenue is left over after both cost of goods sold and operating expenses**. The operating expenses include payroll, sales commissions, marketing, transportation, travel, rent and other general expenses. It's likely easier to comprehend if you think about buying a pair of pants. You are in the mall and want to buy a pair of pants that costs $50, that's a nice pair of pants right? They felt so nice you go ahead and buy them, did you know it only cost $20 to make those pants. That's the cost of goods sold right, $20. Did you pay too much? Let's think about it. After the company made the pants, they had to ship the pants to the store by semi-truck, someone had to unload the shipment of pants, the company pays rent to have a store in the mall, the store has employees who put the pants on display and sold them to you, a commercial was made to promote the pants and these operating expenses add up to $25 on top of the $20 cost of goods sold. Leaving the company with a profit of $5 or gross operating margin of 10%.

GROUP ACTIVITY: MARGIN MATCHING

Let's play a matching game! Match the company with the operating margin they make: Walmart and Facebook.

Company A has operating margin of 24%
Company B has operating margin of 5%

Hint, the secret behind Walmart is they offer the lowest prices and while they make little profit per good sold, they make up for it because they sell so much more socks, shampoo, and cereal than any of their competitors.

Match the operating margin to the following three companies, Coca-Cola, Nike and Boeing.

Company A has operating margin of 8%
Company B has operating margin of 13%
Company C has operating margin of 25%

CONCLUSION

Is your head ready to explode yet? You probably feel a lot like you did in your first week of Spanish class. A little lost with a splitting headache. But give it a bit of time and you're well on your way to being able speak the language of finance. Whether you become a world-famous stock investor in the future, an accountant, or maybe just a dentist trying to keep the records of the business, learning to read financial statements is critical. The more fluent you are, the more successful you will be in almost any industry of business.

ACTIVITY

Divide the class into three or four groups. Each group chooses one representative to act as the "Portfolio Manager". The Portfolio Manager will make the final decision of what the group's vote will be, after discussing it within their group.

Situation: MIXED UP FINANCIAL STATEMENTS Your school landed a summer internship working for the legendary investor, Warren Buffett himself. One team will be chosen to be his next protégés, and will eventually take over his **$60 billion dollar empire, Berkshire Hathaway**.

One morning, Buffett, comes to you in a tizzy. He explains he was doing analysis on companies and going through their financial statements. He printed off their balance sheets and income statements, but lost track of the names of the companies. He says, "Can you match the list of companies I was doing work on with the correct financial statements? I'm positive if I can match the correct companies, I will be able to find the next multi-billion dollar investment idea, and I will hire you to run my company!"

Try to match up the correct the financial statements in **APPENDIX A** with each of the following companies. The team with the most correct answers is the winner. NO CHEATING BY LOOKING ONLINE!

Questions to Consider: (HINTS)

1. Does the company make high margins (Gross profit / Revenue)?
2. What do growth trends of revenue and net income tell you?
3. Is the business capital intensive (do they require a lot of assets to make money)?
4. Does the company hold a lot of inventories relative to their overall sales level?
5. Does the company have a high debt balance?
6. Which company makes the most sales?

COMPANIES:

1) **Amazon.com** (ticker AMZN)- the largest eCommerce website in the world. Fast growing company, also has kindle, Amazon Fire and cloud storage business. Because of fast growth phase, the company is currently not profitable.

2) **Coca-Cola Company** (ticker KO) - The largest beverage company in the world. Coca-Cola is a high margin and high return (ROE) business (above 20%). Revenue has declined a bit in the past two years

3) **Celldex Therepeutics** (ticker CLDX) - an early stage biotech company working on an experimental brain cancer vaccine. The company is spending significantly on research and development, but will not reap the rewards of this investment until many years down the road.

4) **Freeport Mcmoran** (FCX) - One of the largest copper and gold miners in the world. The business has been hit due to declines in the prices of gold and copper. They also own some oil and gas fields.

5) **Costco** (COST)- Costco is one of the largest retail chains in the US, operating a warehouse model that charges a membership fee. Inventory management and increasing sales per assets (sales turnover) is an important part of the business

6) **Facebook** (FB) – Facebook is the largest social network in the world. The company has few real assets (buildings, equipment) and the bulk of their costs are employees. The company is in a high growth phase.

APPENDIX A: SELECTED FINANCIAL STATEMENTS

Company #1

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(In thousands, except per share amounts)

	Year Ended December 31, 2014	Year Ended December 31, 2013	Year Ended December 31, 2012
REVENUE:			
Product Development and Licensing Agreements	$ 838	$ 160	$ 146
Contracts and Grants	2,748	1,617	281
Product Royalties	—	2,334	10,775
Total Revenue	3,586	4,111	11,202
OPERATING EXPENSE:			
Research and Development	104,381	67,401	47,398
Royalty	—	2,334	10,775
General and Administrative	20,622	14,805	10,016
Amortization of Acquired Intangible Assets	1,013	1,013	1,090
Total Operating Expense	126,016	85,553	69,279
Operating Loss	(122,430)	(81,442)	(58,077)
Investment and Other Income, Net	4,350	819	530
Interest Expense	—	(927)	(1,576)
Net Loss	$ (118,080)	$ (81,550)	$ (59,123)
Basic and Diluted Net Loss Per Common Share	$ (1.32)	$ (1.02)	$ (1.02)
Shares Used in Calculating Basic and Diluted Net Loss per Share	89,399	79,777	57,713
COMPREHENSIVE LOSS:			
Net Loss	$ (118,080)	$ (81,550)	$ (59,123)
Other Comprehensive Income (Loss):			
Foreign Currency Translation Adjustments	(5)	(3)	2
Unrealized (Loss) Gain on Marketable Securities	(73)	(74)	91
Comprehensive Loss	$ (118,158)	$ (81,627)	$ (59,030)

CONSOLIDATED BALANCE SHEETS

(In thousands, except share and per share amounts)

	December 31, 2014	December 31, 2013
ASSETS		
Current Assets:		
Cash and Cash Equivalents	$ 28,020	$ 169,402
Marketable Securities	173,023	133,581
Accounts and Other Receivables	427	489
Prepaid and Other Current Assets	3,515	1,717
Total Current Assets	204,985	305,189
Property and Equipment, Net	10,535	9,973
Intangible Assets, Net	21,807	22,820
Other Assets	1,722	148
Goodwill	8,965	8,965
Total Assets	$ 248,014	$ 347,095
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts Payable	$ 2,603	$ 2,243
Accrued Expenses	19,296	17,179
Current Portion of Long-Term Liabilities	2,592	928
Total Current Liabilities	24,491	20,350
Other Long-Term Liabilities	11,863	6,950
Total Liabilities	36,354	27,300
Commitments and Contingent Liabilities (Notes 14 and 16)		
Stockholders' Equity:		
Convertible Preferred Stock, $.01 Par Value; 3,000,000 Shares Authorized; No Shares Issued and Outstanding at December 31, 2014 and 2013	—	—
Common Stock, $.001 Par Value; 297,000,000 Shares Authorized; 89,592,779 and 89,246,832 Shares Issued and Outstanding at December 31, 2014 and 2013, respectively	90	89
Additional Paid-In Capital	672,739	662,717
Accumulated Other Comprehensive Income	2,590	2,668
Accumulated Deficit	(463,759)	(345,679)
Total Stockholders' Equity	211,660	319,795
Total Liabilities and Stockholders' Equity	$ 248,014	$ 347,095

Company #2:

	Year Ended December 31,				
	2014	2013	2012	2011	2010
	(in millions, except per share data)				
Consolidated Statements of Income Data:					
Revenue	$ 12,466	$ 7,872	$ 5,089	$ 3,711	$ 1,974
Total costs and expenses (1)	7,472	5,068	4,551	1,955	942
Income from operations	4,994	2,804	538	1,756	1,032
Income before provision for income taxes	4,910	2,754	494	1,695	1,008
Net income	2,940	1,500	53	1,000	606
Net income attributable to Class A and Class B common stockholders	2,925	1,491	32	668	372
Earnings per share attributable to Class A and Class B common stockholders (2):					
Basic	$ 1.12	$ 0.62	$ 0.02	$ 0.52	$ 0.34
Diluted	$ 1.10	$ 0.60	$ 0.01	$ 0.46	$ 0.28

(1) Total costs and expenses include $1.84 billion , $906 million , $1.57 billion , $217 million, and $20 million of share-based compensation for the years ended December 31, 2014 , 2013 , 2012 , 2011 , and 2010 , respectively.

(2) See Note 3 of the notes to our consolidated financial statements for a description of our computation of basic and diluted earnings per share attributable to Class A and Class B common stockholders.

	As of December 31,				
	2014	2013	2012	2011	2010
	(in millions)				
Consolidated Balance Sheets Data:					
Cash, cash equivalents, and marketable securities	$ 11,199	$ 11,449	$ 9,626	$ 3,908	$ 1,785
Working capital	12,246	11,970	10,215	3,705	1,857
Property and equipment, net	3,967	2,882	2,391	1,475	574
Total assets	40,184	17,895	15,103	6,331	2,990
Capital lease obligations	233	476	856	677	223
Long-term debt	—	—	1,500	—	250
Total liabilities	4,088	2,425	3,348	1,432	828
Additional paid-in capital	30,225	12,297	10,094	2,684	947
Total stockholders' equity	36,096	15,470	11,755	4,899	2,162

COMPANY #3:

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2014	2013	2014	2013
	(unaudited)			
Net product sales	$ 23,102	$ 21,072	$ 70,080	$ 60,903
Net service sales	6,226	4,515	18,908	13,549
Total net sales	29,328	25,587	88,988	74,452
Operating expenses (1):				
Cost of sales	20,671	18,806	62,752	54,181
Fulfillment	3,424	2,918	10,766	8,585
Marketing	1,526	1,133	4,332	3,133
Technology and content	2,635	1,862	9,275	6,565
General and administrative	442	318	1,552	1,129
Other operating expense (income), net	39	40	133	114
Total operating expenses	28,737	25,077	88,810	73,707
Income from operations	591	510	178	745
Interest income	8	10	39	38
Interest expense	(74)	(39)	(210)	(141)
Other income (expense), net	(96)	(30)	(118)	(136)
Total non-operating income (expense)	(162)	(59)	(289)	(239)
Income (loss) before income taxes	429	451	(111)	506
Provision for income taxes	(205)	(179)	(167)	(161)
Equity-method investment activity, net of tax	(10)	(33)	37	(71)
Net income (loss)	$ 214	$ 239	$ (241)	$ 274
Basic earnings per share	$ 0.46	$ 0.52	$ (0.52)	$ 0.60
Diluted earnings per share	$ 0.45	$ 0.51	$ (0.52)	$ 0.59
Weighted average shares used in computation of earnings per share:				
Basic	464	458	462	457
Diluted	472	467	462	465
(1) Includes stock-based compensation as follows:				
Fulfillment	$ 97	$ 81	$ 375	$ 294
Marketing	34	25	125	88
Technology and content	226	175	804	603
General and administrative	51	45	193	149

	December 31, 2014	December 31, 2013
ASSETS		
Current assets:		
Cash and cash equivalents	$ 14,557	$ 8,658
Marketable securities	2,859	3,789
Inventories	8,299	7,411
Accounts receivable, net and other	5,612	4,767
Total current assets	31,327	24,625
Property and equipment, net	16,967	10,949
Goodwill	3,319	2,655
Other assets	2,892	1,930
Total assets	$ 54,505	$ 40,159
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 16,459	$ 15,133
Accrued expenses and other	9,807	6,688
Unearned revenue	1,823	1,159
Total current liabilities	28,089	22,980
Long-term debt	8,265	3,191
Other long-term liabilities	7,410	4,242
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.01 par value:		
Authorized shares — 500		
Issued and outstanding shares — none	—	—
Common stock, $0.01 par value:		
Authorized shares — 5,000		
Issued shares — 488 and 483		
Outstanding shares — 465 and 459	5	5
Treasury stock, at cost	(1,837)	(1,837)
Additional paid-in capital	11,135	9,573
Accumulated other comprehensive loss	(511)	(185)
Retained earnings	1,949	2,190
Total stockholders' equity	10,741	9,746
Total liabilities and stockholders' equity	$ 54,505	$ 40,159

Company #4

CONSOLIDATED STATEMENTS OF INCOME

Year Ended December 31,	2014	2013	2012
(In millions except per share data)			
NET OPERATING REVENUES	**$ 45,998**	$ 46,854	$ 48,017
Cost of goods sold	**17,889**	18,421	19,053
GROSS PROFIT	**28,109**	28,433	28,964
Selling, general and administrative expenses	**17,218**	17,310	17,738
Other operating charges	**1,183**	895	447
OPERATING INCOME	**9,708**	10,228	10,779
Interest income	**594**	534	471
Interest expense	**483**	463	397
Equity income (loss) — net	**769**	602	819
Other income (loss) — net	**(1,263)**	576	137
INCOME BEFORE INCOME TAXES	**9,325**	11,477	11,809
Income taxes	**2,201**	2,851	2,723
CONSOLIDATED NET INCOME	**7,124**	8,626	9,086
Less: Net income attributable to noncontrolling interests	**26**	42	67
NET INCOME ATTRIBUTABLE TO SHAREOWNERS OF THE [redacted]	**$ 7,098**	$ 8,584	$ 9,019
BASIC NET INCOME PER SHARE[1]	**$ 1.62**	$ 1.94	$ 2.00
DILUTED NET INCOME PER SHARE[1]	**$ 1.60**	$ 1.90	$ 1.97
AVERAGE SHARES OUTSTANDING	**4,387**	4,434	4,504
Effect of dilutive securities	**63**	75	80
AVERAGE SHARES OUTSTANDING ASSUMING DILUTION	**4,450**	4,509	4,584

CONSOLIDATED BALANCE SHEETS

December 31,	2014	2013
(In millions except par value)		
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 8,958	$ 10,414
Short-term investments	9,052	6,707
TOTAL CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS	18,010	17,121
Marketable securities	3,665	3,147
Trade accounts receivable, less allowances of $331 and $61, respectively	4,466	4,873
Inventories	3,100	3,277
Prepaid expenses and other assets	3,066	2,886
Assets held for sale	679	—
TOTAL CURRENT ASSETS	32,986	31,304
EQUITY METHOD INVESTMENTS	9,947	10,393
OTHER INVESTMENTS	3,678	1,119
OTHER ASSETS	4,407	4,661
PROPERTY, PLANT AND EQUIPMENT — net	14,633	14,967
TRADEMARKS WITH INDEFINITE LIVES	6,533	6,744
BOTTLERS' FRANCHISE RIGHTS WITH INDEFINITE LIVES	6,689	7,415
GOODWILL	12,100	12,312
OTHER INTANGIBLE ASSETS	1,050	1,140
TOTAL ASSETS	$ 92,023	$ 90,055
LIABILITIES AND EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	$ 9,234	$ 9,577
Loans and notes payable	19,130	16,901
Current maturities of long-term debt	3,552	1,024
Accrued income taxes	400	309
Liabilities held for sale	58	—
TOTAL CURRENT LIABILITIES	32,374	27,811
LONG-TERM DEBT	19,063	19,154
OTHER LIABILITIES	4,389	3,498
DEFERRED INCOME TAXES	5,636	6,152
[redacted] SHAREOWNERS' EQUITY		
Common stock, $0.25 par value; Authorized — 11,200 shares; Issued — 7,040 and 7,040 shares, respectively	1,760	1,760
Capital surplus	13,154	12,276
Reinvested earnings	63,408	61,660
Accumulated other comprehensive income (loss)	(5,777)	(3,432)
Treasury stock, at cost — 2,674 and 2,638 shares, respectively	(42,225)	(39,091)
EQUITY ATTRIBUTABLE TO SHAREOWNERS OF [redacted]	30,320	33,173
EQUITY ATTRIBUTABLE TO NONCONTROLLING INTERESTS	241	267
TOTAL EQUITY	30,561	33,440
TOTAL LIABILITIES AND EQUITY	$ 92,023	$ 90,055

Refer to Notes to Consolidated Financial Statements.

Company #5:

CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,		
	2014	2013	2012
	(In millions, except per share amounts)		
Revenues	$ 21,438	$ 20,921	$ 18,010
Cost of sales:			
Production and delivery	11,904	11,840	10,382
Depreciation, depletion and amortization	3,863	2,797	1,179
Impairment of oil and gas properties	3,737	—	—
Total cost of sales	19,504	14,637	11,561
Selling, general and administrative expenses	592	657	431
Mining exploration and research expenses	126	210	285
Environmental obligations and shutdown costs	119	66	(22)
Goodwill impairment	1,717	—	—
Net gain on sales of assets	(717)	—	—
Gain on insurance settlement	—	—	(59)
Total costs and expenses	21,341	15,570	12,196
Operating income	97	5,351	5,814
Interest expense, net	(630)	(518)	(186)
Net gain (loss) on early extinguishment of debt	73	(35)	(168)
Gain on investment in [redacted]	—	128	—
Other income (expense), net	36	(13)	27
(Loss) income before income taxes and equity in affiliated companies' net earnings	(424)	4,913	5,487
Provision for income taxes	(324)	(1,475)	(1,510)
Equity in affiliated companies' net earnings	3	3	3
Net (loss) income	(745)	3,441	3,980
Net income attributable to noncontrolling interests	(523)	(761)	(939)
Preferred dividends attributable to redeemable noncontrolling interest	(40)	(22)	—
Net (loss) income attributable to [redacted] common stockholders	$ (1,308)	$ 2,658	$ 3,041
Net (loss) income per share attributable to [redacted] common stockholders:			
Basic	$ (1.26)	$ 2.65	$ 3.20
Diluted	$ (1.26)	$ 2.64	$ 3.19
Weighted-average common shares outstanding:			
Basic	1,039	1,002	949
Diluted	1,039	1,006	954
Dividends declared per share of common stock	$ 1.25	$ 2.25	$ 1.25

CONSOLIDATED BALANCE SHEETS

	December 31, 2014	December 31, 2013
	(In millions, except par value)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 464	$ 1,985
Trade accounts receivable	953	1,728
Income and other tax receivables	1,322	695
Other accounts receivable	288	139
Inventories:		
Mill and leach stockpiles	1,914	1,705
Materials and supplies, net	1,886	1,730
Product	1,561	1,583
Other current assets	657	407
Total current assets	9,045	9,972
Property, plant, equipment and mining development costs, net	26,220	24,042
Oil and gas properties, net - full cost method:		
Subject to amortization, less accumulated amortization of $7,360 and $1,357, respectively	9,187	12,472
Not subject to amortization	10,087	10,887
Long-term mill and leach stockpiles	2,179	2,386
Goodwill	—	1,916
Other assets	2,077	1,798
Total assets	$ 58,795	$ 63,473
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	$ 3,653	$ 3,708
Current portion of debt	478	312
Accrued income taxes	410	184
Dividends payable	335	333
Current portion of environmental and asset retirement obligations	296	236
Total current liabilities	5,172	4,773
Long-term debt, less current portion	18,492	20,394
Deferred income taxes	6,398	7,410
Environmental and asset retirement obligations, less current portion	3,647	3,259
Other liabilities	1,861	1,690
Total liabilities	35,570	37,526
Redeemable noncontrolling interest	751	716
Equity:		
Stockholders' equity:		
Common stock, par value $0.10, 1,167 shares and 1,165 shares issued, respectively	117	117
Capital in excess of par value	22,281	22,161
Retained earnings	128	2,742
Accumulated other comprehensive loss	(544)	(405)
Common stock held in treasury – 128 shares and 127 shares, respectively, at cost	(3,695)	(3,681)
Total stockholders' equity	18,287	20,934

YOUNG INVESTORS SOCIETY

Company #6

CONSOLIDATED BALANCE SHEETS
(amounts in millions, except par value and share data)

	August 31, 2014	September 1, 2013
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 5,738	$ 4,644
Short-term investments	1,577	1,480
Receivables, net	1,148	1,201
Merchandise inventories	8,456	7,894
Deferred income taxes and other current assets	669	621
Total current assets	17,588	15,840
PROPERTY AND EQUIPMENT		
Land	4,716	4,409
Buildings and improvements	12,522	11,556
Equipment and fixtures	4,845	4,472
Construction in progress	592	585
	22,675	21,022
Less accumulated depreciation and amortization	(7,845)	(7,141)
Net property and equipment	14,830	13,881
OTHER ASSETS	606	562
TOTAL ASSETS	$ 33,024	$ 30,283
LIABILITIES AND EQUITY		
CURRENT LIABILITIES		
Accounts payable	$ 8,491	$ 7,872
Accrued salaries and benefits	2,231	2,037
Accrued member rewards	773	710
Accrued sales and other taxes	442	382
Deferred membership fees	1,254	1,167
Other current liabilities	1,221	1,089
Total current liabilities	14,412	13,257
LONG-TERM DEBT, excluding current portion	5,093	4,998
DEFERRED INCOME TAXES AND OTHER LIABILITIES	1,004	1,016
Total liabilities	20,509	19,271
COMMITMENTS AND CONTINGENCIES		
EQUITY		
Preferred stock $.005 par value; 100,000,000 shares authorized; no shares issued and outstanding	0	0
Common stock $.005 par value; 900,000,000 shares authorized; 437,683,000 and 436,839,000 shares issued and outstanding	2	2
Additional paid-in capital	4,919	4,670
Accumulated other comprehensive loss	(76)	(122)
Retained earnings	7,458	6,283
Total Costco stockholders' equity	12,303	10,833
Noncontrolling interests	212	179
Total equity	12,515	11,012
TOTAL LIABILITIES AND EQUITY	$ 33,024	$ 30,283

CONSOLIDATED STATEMENTS OF INCOME
(amounts in millions, except per share data)

	52 Weeks Ended August 31, 2014	52 Weeks Ended September 1, 2013	53 Weeks Ended September 2, 2012
REVENUE			
Net sales	$ 110,212	$ 102,870	$ 97,062
Membership fees	2,428	2,286	2,075
Total revenue	112,640	105,156	99,137
OPERATING EXPENSES			
Merchandise costs	98,458	91,948	86,823
Selling, general and administrative	10,899	10,104	9,518
Preopening expenses	63	51	37
Operating income	3,220	3,053	2,759
OTHER INCOME (EXPENSE)			
Interest expense	(113)	(99)	(95)
Interest income and other, net	90	97	103
INCOME BEFORE INCOME TAXES	3,197	3,051	2,767
Provision for income taxes	1,109	990	1,000
Net income including noncontrolling interests	2,088	2,061	1,767
Net income attributable to noncontrolling interests	(30)	(22)	(58)
NET INCOME ATTRIBUTABLE TO COSTCO	$ 2,058	$ 2,039	$ 1,709
NET INCOME PER COMMON SHARE ATTRIBUTABLE TO COSTCO:			
Basic	$ 4.69	$ 4.68	$ 3.94
Diluted	$ 4.65	$ 4.63	$ 3.89
Shares used in calculation (000's)			
Basic	438,693	435,741	433,620
Diluted	442,485	440,512	439,373
CASH DIVIDENDS DECLARED PER COMMON SHARE	$ 1.33	$ 8.17	$ 1.03

PREPARING FOR THE YIS STOCK PITCH COMPETITION

Provide 10-20 minutes during the research meetings to work on the National Stock Pitch competition, researching your stock ideas.

- After this lesson, go through the financials of the company's on your list of stock ideas. Are revenues growing? Are earnings growing? Are margins expanding? What is the debt level of the company? Would you rate this company as financially healthy? Are their financial metrics better or worse than other companies in their industry?
- Begin to forecast **revenues** for your stock idea. How fast do you think revenues are going to grow each year? How do you justify your assumption? Are you assumptions different than consensus?
- Begin to forecast **earnings** for your stock idea. How fast do you think earnings are going to grow each year? How do you justify your assumption? Do you think margins will expand? Will earnings growth be faster than revenue growth?
- It may be helpful to go to Morningstar.com, and export financial statements into Excel, and start building a financial model for companies you are interested in researching further.

FOLLOW-UP IDEAS

Some ideas to further explore the concepts covered here are:

- Contact a local business and ask to see their financial statements. Ask them the biggest challenge in maintaining the books, understand how their numbers work together.
- Ask your parents how they keep track of finances within the family. How does sticking to a budget help them?
- Keep track of your personal finances for a month. Track revenues (income) and expenses, and profit (how much you save each month). Also keep track of assets (stuff you own) and liabilities (any debt you owe).

GLOSSARY OF TERMS

- **Accounts Payable** – a short term liability, representing money the company owes for purchases from a supplier

- **Accounts Receivable** – a short term asset, representing money the company is expecting to receive from sales made to customers

- **Accrued Expenses** – a liability, such as an obligation to pay interest to bank lenders or to pay taxes to the government

- **Asset** – a resource that the company owns or controls

- **Balance Sheet** – one of the three primary financial statements, which shows a snapshot of the assets, liabilities, and equity of the business at a certain point in time

- **Cash** – the money a company has on hand, whether in physical currency or in bank accounts

- **Common Stock** – the stock sold to investors on the market

- **Cost of Goods Sold** – the costs required to produce the good or service sold to a customer

- **Equity** – the total of all stock owned and earnings retained that belong to the owners

- **Gross Margin** – the total revenue (or sales) minus the cost of goods sold

- **Income Statement** – one of the three primary financial statements, which shows the activity of a company over a period of time, showing both revenues and expenses

- **Inventories** – products that will eventually be sold to a customer

- **Liability** – any obligation that the company owes to another entity

- **Long-term Debt** – a liability such as a loan from a bank

- **Market Share** – the percentage of a certain industry or market (e.g. the athletic shoe market) that a certain company's sales are

- **Operating Expenses** – the costs associated with operating the business, such as payroll, sales commissions, marketing, transportation, travel, and rent expenses

- **Operating Income** – the income after subtracting both cost of goods sold and operating expenses from total revenues

- **Operating Margin** – calculated by dividing operating income by total revenues

- **Property, Plant, & Equipment** – the long-term physical assets owned by a company, including land, buildings, furnishings, and machinery

- **Retained Earnings** – income generated by the business that has been reinvested in the business, rather than distributed to owners in a dividend

- **Revenue (or Sales)** – the total amount generated by sales to customers

- **Statement of Cash Flows** – one of the three primary financial statements, which shows all the sources and uses of cash over a period of time

If you see other terms on a financial statement that you don't recognize, or want to learn more about, check out:
http://www.investopedia.com/dictionary/
http://www.accountingcoach.com/terms
http://www.accountingtools.com/accounting-dictionary/

FOR INSTRUCTORS: LESSON 5 ANSWER KEY

ANSWERS

ESSENTIAL QUESTIONS:

Choose someone to present to the class: Why a balance sheet is important?
A balance sheet is important because it tells us how much debt a company has, how much equipment they have, how much in receivables they are waiting the receive, how much cash a company has, and how much equity the company has. If we didn't have a balance sheet, we could know how much a company makes in profits, but we wouldn't know how much equipment and debt they had to invest to get it. A balance sheet tells us if a company is in financial trouble or is financially healthy. Think the of the income statement as your paycheck each month, and the balance sheet as your savings account, house, and stuff that you own.

All things equal, would you rather have more liabilities or less?
For the same amount of revenue and profits, we would rather have **less** liabilities (debt).

Choose someone to present to the class: Why the income statement is important?
An income statement shows some very important metrics, such as how much revenue a company generates, how much it cost them in expenses, and how much profit they generated. If the balance sheet is your savings account and assets, the income statement is the salary your receive each month. Obviously, the more the better, and the faster it's growing the better.

Which two lines on the income statement do you think are the most important?
This could vary, but the most common answers will be the Revenue and the Profits. From these two you can also calculate whether the profit margin (profits / revenue) is increasing or decreasing. As a shareholder, your value is the earnings a company earns each year and the dividends they pay you over time. A P/E rate needs an "E" earnings, to be calculated.

<u>**ACTIVITY – FREE CASH FLOW**</u>
Can you calculate the Free Cash Flow for Apple using the statements in this lesson?

Net Income, $8,467 (found on the Income Statement)
+ Depreciation, $7.946 (found on the statement of Cash Flows)
– CAPEX, $9,571 (Payment for acquisition of property, plant & equip on Cash Flows)
= **Free Cash Flow, $6,842**, or $6.8 billion dollars per year of cash generated.

<u>**ACTIVITY – MARGIN MATCHING**</u>

Boeing is company A, Nike is Company B and Coca-Cola is company C. As you would expect the higher priced item would have a lower operating margin and considering the airplanes that Boeing typically sell have a price tag of $110 million dollars, earning the company approximately $8.1 million dollars per plane before taxes! Not too bad. The operating margins for Nike are 13% and Coca-Cola 25%. Coca-Cola and Nike dominant their peers in respect to margins, as they have higher revenue and lower cost of goods sold. When comparing both gross margin and operating margin, it's important to compare companies in the same industry.

ACTIVITY – MIXED UP FINANCIAL STATEMENTS

Company #1: Celldex
We can see that this company is loss making, net loss is $118mn. The total revenues are actually going down, but the Research and Development cost (R&D) is going up because the company is spending to develop a brain cancer drug. On the balance sheet, we see that the company has very little assets, it doesn't take a lot of plants or equipment to experiment in a lab.

Company #2: Facebook
Facebook is growing very fast, look at how fast their revenues and their income are growing. The company is highly profitable, and has very few assets relative to their revenues. They have two classes of shares, which gives Mark Zuckerberg voting control of the company.

Company #3: Amazon
Amazon earns a very small profit for the amount of revenue that they generate ($214/$29,328 = 0.7% profit margin). But they are growing revenues fast. One of the clues to Amazon is fulmillment costs, which is the costs to run their fulfillment centers. They also have assets in $16,967 in property assets, which are these distribution centers.

Company #4: Coca Cola
One clue is that Coca Cola revenue has decline in the past two years. Calculating the Return on Equity (ROE) is 23.2%, (7,098/30,561) in 2014, which is a very good ROE. The company has a high gross margin (gross profit to revenue). The giveaway clue is that they have bottlers rights on the Assets, and high trademark rights.

Company #5: Freeport McMoran
We can see from the income statement that Freeport is making a net loss, with high assets. This is what happens when commodity prices fall. The balance sheet has many clues that this is a mining company. "long term mill and leach stockpiles", "oil and gas properties", and "mining development costs" are all giveaways.

Company #6: Costco
Costco's revenues are growing and their revenue per assets is good. You can see on the income statement membership fees, which account for a good portion of Costco's profit. Merchandise costs are the biggest cost on the income statement, and buildings is the biggest asset on the balance sheet.