Stock Investing 101

YOUNG INVESTORS SOCIETY

www.younginvestorssociety.org

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Young Investors Society

5551 Colodny Drive

Agoura Hills, CA 91301

www.younginvestorssociety.org

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THE SEVEN GOLDEN RULES OF INVESTING

Introduction

Welcome Young Investors! It is our goal to make you master investors. Many of the lessons you will learn have been used by successful investors over several generations. You will notice that a recipe for success is easy to follow but is actually followed by few. Let's start with a question:

ARE YOU AN INVESTOR?

Are you a spender or an investor? Pop Quiz. Ready. Go.

Question #1

I'll give you $100 today or a new Mercedes next year? Which one will you take?

A) The cash
B) The car
C) Why are you even looking at other options, you'd be crazy not to take the car!

Question #2

I'll give you $100 today or $100 next year. Which one will you take? Think about it...

A) The cash today
B) The same cash tomorrow
C) Of course you wouldn't wait! What's the point? You wouldn't get anything in return for waiting.

In one minute we've narrowed down whether you are an investor or a spender. You're a spender if you don't get a return. You're an investor if the future is worth somewhere between $100 and a new car. The question of whether you will invest is really just a question of how much you believe tomorrow can offer.

How much could the future be worth for a bit of sacrifice today?

That is the key question that every investor asks themselves….

QUESTIONS TO CONSIDER:

1. How much cash would you be willing to give up today in return for a promise to receive $500 5 years from now from that investment? $50? $100? $300? $450?

2. What does a low number ($50) say about you? What does a high number say about you ($450)?

SECTION 1

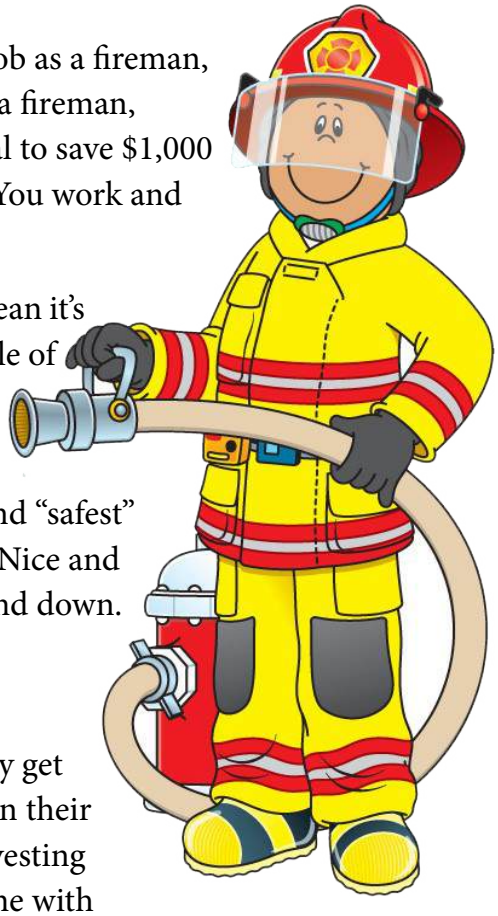
Who are Investors?

The truth is that WE ARE ALL investors. When we hear the word investors, we may think of a high-flying Wall-Street banker in a blue-pin striped suit. That is certainly one type of investor, but so is the business owner, the family trying to save for their kids' college, and the college student trying to scrape up enough quarters to eat dinner. We all need to manage the money we make, and we all hope to end up with as much money as possible.

The question of building wealth in your life will really boil down to two questions?

1) *Are you able to save each year?*
2) *When you save, where do you put the money?*

Hypothetical



Let's assume you're 20 years old and just took a job as a fireman, your childhood dream (what kid doesn't want to be a fireman, right?). Your salary is meager, but you make the goal to save $1,000 dollars per year and put it in a retirement account. You work and save for the next 50 years until you retire.

Does it really matter where I put that money, I mean it's only a thousand bucks a year? Well you have a couple of options, let's evaluate.

1). The savings Account (otherwise known as the "Under the Mattress" approach). The easiest and "safest" thing is you could just put the money in cash. Nice and safe! It will never go away and it won't go up and down.
Average Annual Return: 0%
Amount Accumulated in 50 Years: $50,000

2). Bonds or Real Estate. Most people say that they get most of their retirement funds from investing in their home and watching it increase in value. Or investing in bonds. Both of these options will grow in line with inflation, which on average is about 3% per year.
Average Annual Return: 3%
Amount Accumulated in 50 Years: $116,000

3). The Stock Market. Scary, right? It goes up and down. There are times when it can decline by 20% in a short period of time, inducing panic and scary headlines. But over time, the stock market grows with how fast corporations grow. In every ten year period, the stock market earns you 8-10% returns. In fact, over the last century, the S&P 500 (the largest 500 companies in the US) have returned 9.8% per year.

Average Annual Return: 9.8%
Amount Accumulated in 50 Years: $1,359,199

So does it really matter where you put your money? Uh, yeah! It makes all the difference in the world. In fact, the more money that you can put in the stock market early, the more the magnifying effect of "compound interest" or "compounding" can work in your favor.

"Compound interest is the eighth wonder of the world"
-Albert Einstein

Now, I know what you're thinking. If going from 3% to 10% return gets me an extra million dollars, what does getting a 20% return do? Warren Buffett, the legendary investor, for example earned 30% return over a period of 30 years. (called the famous "30/30").

4). Beating the Market. This isn't easy, it isn't for everyone, but let's say you take a few hours per week, and you do your homework, and invest in some exceptional companies through the stock market, and earn an extraordinary 20% return per year. This is a very high return (even 12% per year is quite a feat) but let's just assume you're really good at finding great stocks.
Average Annual Return: 20%
Amount Accumulated in 50 Years: $109,826,119 (Yes, that's over $100 million dollars)

That's a huge fortune for a fireman saving just $1k per year. So, now you know why you heard your dad's friend bragging that he "beat the market" on his investment portfolio last year. The difference between 3% and 10% may seem small, but it makes all the difference in the world towards building wealth.

Starting Early

Compound interest is a powerful effect, and the EARLIER you start investing the more it will work for you. Consider the example above with the fireman, but instead of starting to save at 20 years old, instead he starts to save at 40 years old. Instead of retiring with $1.3 million he will retire with only

$190k. Look at the results below assuming he invests in the stock market:

Started saving $1,000 per year at

- at Age 40 = $190,773 (at age 70)
- at Age 30 = $535,682 (at age 70)
- at Age 20 = $1,359,199 (at age 70)

And then, let's say you join Young Investors Society and start investing when you're 15 years old. What does an extra 5 years get you?

- at Age 15 = $2,224,948 (at age 70)

Notice that the difference is almost a million dollars difference if you start just 5 years earlier!

In summary, the TWO CRITICAL FACTORS of COMPOUND INTEREST are:

5). Earn a High Return (i.e. the stock market)
6). Start Early

And remember, we're all investors, whether we like it or not!

WHAT DOES IT REALLY MEAN TO INVEST IN THE STOCK MARKET?

Questions:

1. What is a "stock"?
2. What is the stock market?

The following link is a great video explaining a "stock" and the "stock market", please review Lesson 1 (What is the Stock Market) and Lesson 2 (What are Stocks) done by our partner, Wall Street Survivor.

https://younginvestorssociety.org/videos/stock-market-101/

You can see from this that investing in the stock market is "serious business," at the same time it can be a fun game. Never forget that when you buy shares in a company, you become one of its owners!

QUESTIONS TO CONSIDER:

1. What does it mean to buy a "stock"?
2. Why does the Stock Market go up and down?

All companies have owners. A small company started by a single individual may have only him or her as the single owner. The large corporations that have stock (shares that are traded by the general public) have many owners. To simplify and organize the buying and selling of these shares by the general public, companies use the stock market. In fact, US government regulations require that a company, once it reaches a certain number of owners, must go public. This is to allow its now large number of owners to be able to buy and sell their shares of stock in the company more easily.

Just think about it this way. Let's pretend that your sibling or a close friend is starting a small company. He or she is doing really well, but needs more money (capital) to expand. He or she asks you to become a part owner in the business by investing some of your savings. You agree. Would you try to sell your ownership in the company just a few days later? Most likely not! It should be the same thing when you decide to buy a public company's stock. The only real difference is that your sibling's or friend's company is a private company with just two shareholders, whereas there are many more owners in a public company with shares in the "stock market."

"Without a saving faith in the future, no one would ever invest at all. To be an investor, you must be a believer in a better tomorrow" Benjamin Graham

ACTIVITY: FIND THE STOCK

Investing in a stock is buying a piece of the company.

Search the internet to match the brands with the company (stock) that owns it. What stock ticker (example AAPL for Apple) would you buy if you wanted to invest in the growth of the following products?

- ESPN
- Pampers
- YouTube

SECTION 2

BEATING THE MARKET

To start, let me introduce you to Warren Buffett. Mr. Buffett has been the single most successful investor since the late 1950s.

Let's set the stage. The year is 1984. Recently, there had arisen a growing consensus that the stock market was fully efficient, called "Efficient Market Theory." Basically, academics and investors were declaring it impossible for someone to consistently pick stocks that would beat the overall market average, because everything was priced in already. Columbia Business School hosted an epic debate as a contest between Michael Jensen, a professor from the University of Rochester and one of the leading voices of the Efficient Market Theory versus Warren Buffett, famed stock-picker. Jensen went first. He argued that if you flipped a coin 50 times, there would be someone that happened to get heads 50 times in a row, but that didn't mean that that person had skill. He called picking stocks a "coin flip".

Then Buffett spoke. He said "let's imagine that we had a coin flipping contest. And that of course we could have some lucky winners and losers. But then, let's assume that all the winners had something in common. What if all the winners of the coin-flipping contest came from Omaha, or had an unusual technique. Wouldn't you be curious to find out what made this high concentration of winners? Buffett then went through the investment performance of nine successful investors that just so happened to all practice the same methodology and all had the same teachers, Benjamin Graham and David Dodd. He called them "The Superinvestors of Graham-and-Doddsville." Buffett was unequivocally declared the winner after his masterful speech. No one could doubt the numbers or the logic. The clear conclusion is that you can be successful in picking stocks, and it requires following the investment principles of Graham and Dodd and Buffett.

(The Article can be found at the web address:

http://www8.gsb.columbia.edu/alumni/news/superinvestors)

Buffett references Benjamin Graham and David L. Dodd. Together Graham and Dodd wrote Security Analysis in 1934. This book, still in print after several editions, has influenced many great investors since the very first

publication. Additionally, Benjamin Graham wrote The Intelligent Investor in 1949. Mr. Buffett first read this book in 1950 and considers it, "by far the best book on investing ever written." Benjamin Graham is considered the father of value investing and so we start here. As you read the article make a note of the key concepts that are referenced. Some are repeated several times.

QUESTIONS TO CONSIDER:

1. What are the common traits of successful investors?

2. If there is a clear recipe for investment success, why do you think so few people follow it?

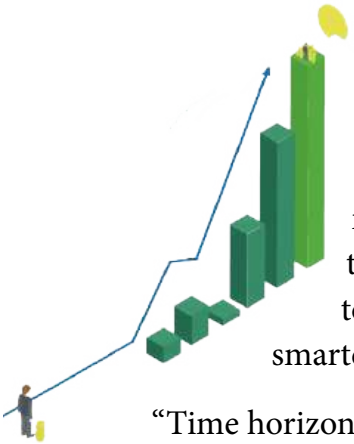
SECTION 3

THE SEVEN GOLDEN RULES

Being successful at anything requires following a set of rules. Good rules are the accumulation of decades of wisdom summed up into the few components that really matter. Successful football players win because they avoid penalties and because of the way they train. Successful students get A's because of the way they study.

Investing in the stock market is no different, except that when you succeed in investing you make money - a lot of money. Take Warren Buffett for example; he started out with $10,000 and turned it into a net worth of $60,000,000,000 (That's 60 BILLION!) . But he's not alone. Peter Lynch, Bill Ruane, Walter Schloss, Bill Miller, Charlie Munger, Joel Greenblatt, and many others generated similar extraordinary investment returns, consistently, over a long-term time horizon. Each successful fund manager's style was slightly different, but if you study them each carefully you'll start to see significant patterns. We summed these patterns into Seven Golden Rules.

So, without further ado, here are the Seven Golden Rules of Successful Investing so that you can crush it in the stock market.

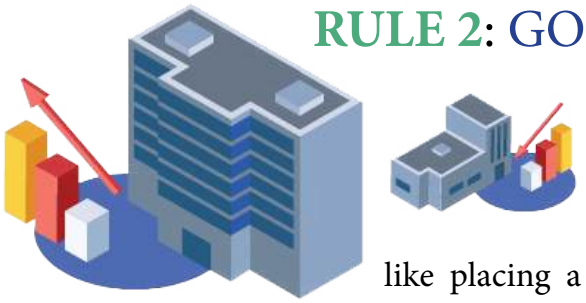


RULE 1: THINK LONG-TERM

Trying to time the stock market or risking it all to "double your money in a year" is at best speculating, at worst gambling. You may as well just take your money to Vegas and lose it there. Those who are able to successfully navigate the stock market are not speculators or gamblers, they are investors. Investors know they can beat the market because they think differently, they think smarter, and they think longer-term.

"Time horizon arbitrage" means that if investors learn to think long-term and can see beyond the daily and quarterly noise, they can gain a real upper hand. In 1964, American Express was a great company but the stock was getting hammered due to an insurance scandal. The company had to pay millions of dollars in fines due to accidentally underwriting barrels of vegetable oil that turned out to be water. That is exactly the time when Warren Buffett began purchasing the stock. The best investors look beyond short term distress and keep their eyes on the long-term horizon.

"Only buy something that you'd be perfectly happy to hold if the market shut down for 10 years."
-Warren Buffett



RULE 2: GOOD COMPANIES MAKE GOOD INVESTMENTS

People need to understand that investing is not like placing a bet on whether the Cowboys will cover the spread against the Packers in the big game. Investing is not trying to get the quarterly press release a microsecond before the other person. It is not even about trying to predict which stock that you think will go up the most. Fundamental Investing is buying a tangible piece of a business, or a share of that business. And your investment portfolio (the collection of all the different shares you own) is only as good as sum of the companies in that portfolio.

"It's far better to buy a wonderful company at a fair price than a fair company at a wonderful price"

If you buy shares of high quality companies at reasonable prices, you'll end up with a high quality portfolio with less risk. It's as simple as that. Good companies are ones that have a unique advantage that others can't copy. Good companies are ones that generate high returns on capital. Good companies don't need to borrow a lot because their business is self-financing.

"It's far better to buy a wonderful company at a fair price than a fair company at a wonderful price" Warren Buffett

RULE 3: BUY WITH A MARGIN OF SAFETY

Nearly every professional investor began his career reading Benjamin Graham's, The Intelligent Investor. Warren Buffett called it, "by far, the best book on investing ever written." What makes it so special? One of the reasons is because it introduced the important concept "Margin of Safety."

In investing, a margin of safety is formed when one buys an investment at less than its value, while using conservative assumptions. The idea of a margin of safety is that you want to buy a business at a price that is low enough that your assessment could be completely wrong and you wouldn't lose much.

"Heads I win. Tails I don't lose much."

-Mohnish Pabrai, Dhandho Investor

RULE 4: DO YOU OWN HOMEWORK AND OWN WHAT YOU KNOW

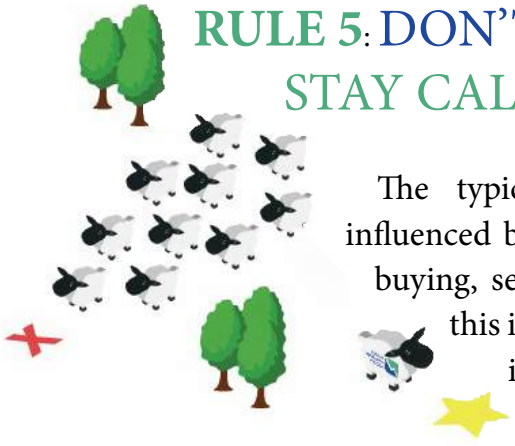
There is no substitute for your own work. Buying a stock because CNBC recommended it, or because your uncle recommended it, or the stock chart looks good is a sure way to lose money.

Successful investors know what they own. They buy stocks of companies with products they believe in. Successful investors go the extra mile to analyze the financials of the company to make sure they're not missing anything. Remember, most of the extraordinary gains made in the stock market come after a stock is punished or after it has already risen a lot, but you're not going to have the conviction to stick with it unless you really know the company.

"You have to know what you own, and why you own it."

-Peter Lynch

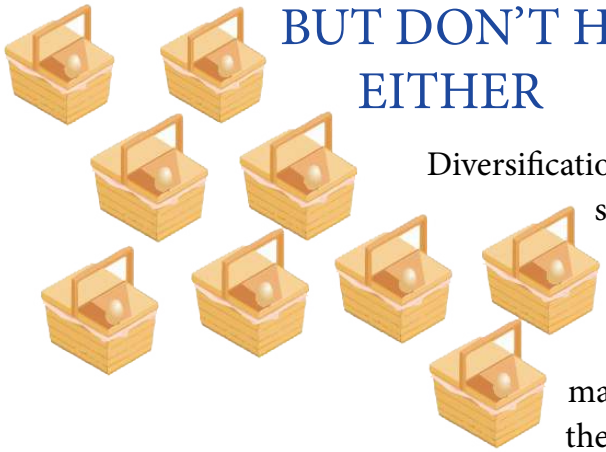
RULE 5: DON'T FOLLOW THE HERD, STAY CALM AND RATIONAL



The typical buyer's decision is usually heavily influenced by those around him: buy when others are buying, sell when others are selling. Unfortunately, this is a recipe that is bound to backfire. The best investors are ones that can fight this urge and remain calm through a storm, and remain on the sidelines through a bubble.

The world's greatest investor Warren Buffett said it best, "Be fearful when others are greedy, and be greedy when others are fearful!"

RULE 6: DON'T PUT ALL YOUR EGGS IN ONE BASKET, BUT DON'T HAVE TOO MANY BASKETS, EITHER



Diversification is one of the most critical strategies for your portfolio so that if one stock blows up, it won't sink the entire ship. As much as we think we won't make a mistake, we will. Even the masters do and that is why we can't put all our eggs in one basket. There's power in diversification.

However, research suggests that 90% of diversification benefits can be obtained in most markets with a portfolio of just over 20 stocks. The more you diversify beyond that, the less you know about each investment (See Rule #4). Your first and second best ideas are always better than your 100th best idea, so while diversifying is crucial, make your best ideas count!

Warren Buffett

"We try to avoid buying a little of this or that when we are only lukewarm about the business or its price. When we are convinced as to attractiveness, we believe in buying worthwhile amounts".

RULE 7: NEVER STOP LEARNING

Perhaps the most important rule is learn, learn more, and then keep learning. The fun thing about investing is that the markets are always different and companies are constantly changing. Never stop learning about businesses, never stop learning from other great investors, and never stop learning from your own mistakes. Humility and an eagerness to learn are two traits found in all of the great investors. Even Warren Buffett credits his partner Charlie Munger with teaching him that it's better to buy a great company at a fair price than a fair company at a great price.

"The game of life is the game of everlasting learning. At least it is if you want to win."

-Charlie Munger

8TH BONUS RULE WHEN YOU MAKE A LOT MONEY, FIND MEANINGFUL WAYS TO GIVE IT BACK.

Bill & Melinda Gates took their fortune and lifted millions of people out of poverty through their foundation. Warren Buffett has done the same with his billions. If you make millions or even billions of dollars through the concepts taught by YIS, we hope that you will take it and make the world a better place. And even if you don't make millions, you can find important ways to give back to your community. Giving, can be done not only with money, but also with your time, your energy and your talents. At YIS, we believe it's possible to really make our investments count. That's why we're investing in you.

KEY TAKEAWAYS

- Warren Buffet and many others made it clear that it is very possible to make exceptional returns from the stock market, following a few simple rules.
- Investing is simple, but it is not easy. The Golden Rules of Investing are widely known but difficult to follow in practice.
- By investing in a stock you are owning a portion of a business.

LESSON 2:

THE VALUE OF A STOCK

Introduction

Imagine in front of you is a box of a dozen doughnuts. How much would you pay for one donut? If all the donuts in the box are the same, is one worth more than the other? What if the world had a shortage of sugar and this was the last box of donuts in the world, with none being able to be made for the next year? Does the scarcity increase the value of the good? How about if you just ate a box of donuts and can't eat any more, does the value you would pay for a donut decrease?

The box of 12 doughnuts represents a company. When you break the company down, everyone has an opportunity to own some of the donuts, or part of the company. But people may pay wildly different prices for the same donut. If you want to maximize the value of a box of donuts, what might be the best approach? One method is to convince people that these are the tastiest donuts in the world and they will only be around for a limited time. In a nutshell, this is how the market works. The stock market is made up of people that get excited about something or sick of something depending on their mood. What is obvious is that occasionally the market goes nuts!

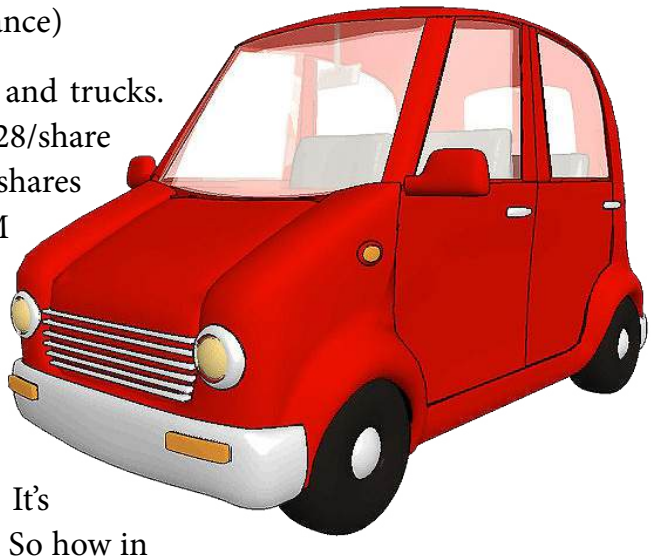
Consider watching the following video to see how legendary investor Warren Buffett responds to the question, "What do you do when the market goes down?" How is Warren Buffett using common sense about when things are "on sale?" Do you agree?

https://www.youtube.com/watch?v=ss0cHrqFr3Q

SECTION 1

WHY DO STOCK PRICES FLUCTUATE SO MUCH?

Open any financial newspaper like the Wall Street Journal. Turn to the stock quote section, pick any company at random, and look at the high and low stock price from the past year. (or go to yahoo.finance)



Ok, let's see here. We have GM. They make cars and trucks. Over the past 52 weeks, their stock traded as low as $28/share and as high as $39/share. They have 1.6 billion (bn) shares outstanding, so that means that the market value of GM was as low as $45bn and as high as $62bn. That's a difference of $17 billion dollars in value. Now the car business doesn't really change that much. You sell plus or minus 5% more vehicles per year. Chevy Silverado is a Chevy Silverado and they're not figuring out how to replace gasoline for water, or how to fly to the moon. It's basically the same business this year as it was last year. So how in the world could the value fluctuate by $17 billion dollars? And more so, why is this happening with every single company in the stock market?

Was last year an exceptional year of price swings? Nope
Is there something the market knows that we don't know? No.

So, what's the explanation? Well, it can be summed up into four short words: "THE MARKET GOES NUTS!"

MR. MARKET

Let me tell you a story. It's a story that legendary investor Benjamin Graham told. It is about a business partner of yours, named Mr. Market. Imagine you own a business together. Now, Mr. Market is a good guy, but he suffers from wild mood swings. One day he wakes up, and the sky is blue and he is feeling really, really good. So he offers to buy out your stake in the business for way more than it is worth. Then the next day, he wakes up and it's raining, he's feeling desperate, and he is screaming that the world is going to end. He offers to sell you all of his stock in the company for half of what you paid for it. You take it! The next day, Mr. Market offers to pay a price that is neither extraordinarily high nor extraordinary low, so you just do nothing. Now the value of the business didn't really

change from day to day – what changed was the erratic moods of Mr. Market. In short, Mr. Market is one moody dude.

So does this mean that we shouldn't invest in the stock market, because of these wild swings in the short term? To the contrary! The fact that we are offered deals from time to time should make us very, very excited. Our goal is to 1) identify what the company is worth and 2) to wait for Mr. Market to have a bad day and buy it at a large discount. Benjamin Graham called this giving ourselves a "margin of safety." This is the equivalent of buying dollars for fifty cents.

Ok, you're thinking. This is all well and good. Wait for the market to go crazy and buy below the fair value. However, there is one problem: How can we be sure that we can even come close to knowing the value of a company? How can we be sure that our forecasts (a.k.a. wild guesses) are even in the ballpark? Aren't there a ton of smart people and computer programs waiting to scoop up a bargain as soon as it becomes available?

Surprisingly, not as many as you think.

QUESTION TO CONSIDER:

1. Think about something that you got a really killer deal on that you bought in the past, how were you able to get that deal? How is this similar to the stock market?

SECTION 2

WHAT IS THE VALUE OF A BUSINESS?

We'll only invest in a company when the price we pay today is significantly less than the value we will get tomorrow.

Example: Teacher picks a student at random. Teacher holds up a $10 bill and asks the student, "What is the value of this bill?" Ten dollars. Teacher holds up ten $1 bills. She asks the same question, "What is the value of these dollar bills?" Ten dollars. Teacher offers to sell the student the $10 bill for the ten $1 dollar bills. This is a wash so maybe he'll take it, maybe he won't. Then Teacher offers to sell the $10 for only five $1 dollar bills. Of course he should take it. Ask the question to the rest of the class at large, "How many of you would buy this?" Do the reverse. Ask to sell the $10 bill for twenty $1 bills? How many would take this? None of them.

The best investors are able to snatch up $10 bills when the market is only asking $5 for them. But how is this possible? It is possible because 1) the value is tricky to calculate and 2) the market is irrational.

Remember the Market goes nuts. Is this a good thing or a bad thing for you? It's a very good thing. If all investors based their investment decisions on rational and conservative estimates of intrinsic value, it would be very difficult to make money in the stock market. Fortunately, the participants in the stock market are humans subject to the corroding influence of emotions. Many investors will give into hype around stocks, or people will hop on a trend, because they have optimistic views that they can beat the system. As young investor geniuses, we will always check emotions at the door and buy stocks based on what they are really worth.

But how do we know what the value of the company is?

Let's take Apple. What is the value of the world's largest business of consumer electronics? The value of any business is the present value of all future cash the company will make minus the cash it needs to invest to make this happen. Ok, that's a bit of a mouthful, stay with me.

Let's assume that today Apple sells 200 million (mn) products per year at an average price of $1,000 each. So they make $200 billion dollars a year in sales. But to make those 200mn products, they spend $700 per device to design and make them and $100 to buy the equipment. So

they're taking home $200 per device, or 40bn dollars. Would you pay $40 to receive $40 next year? No, not unless you think Apple is going to keep making money the following year. Ok, let's assume Apple sells 5% more products every year at the same price of $1,000. Next year they make $44bn, the following year they make $48.4bn and so on. The value of Apple then becomes everything under the line. Let's assume Apple can keep this trend for the next 40 years. The total amount of profits going forward, at today's value is about $675 billion dollars. Not bad, eh? Divide that by the number of shares outstanding, and we have the value of the shares at about $111 dollars per share.

Annual Profit

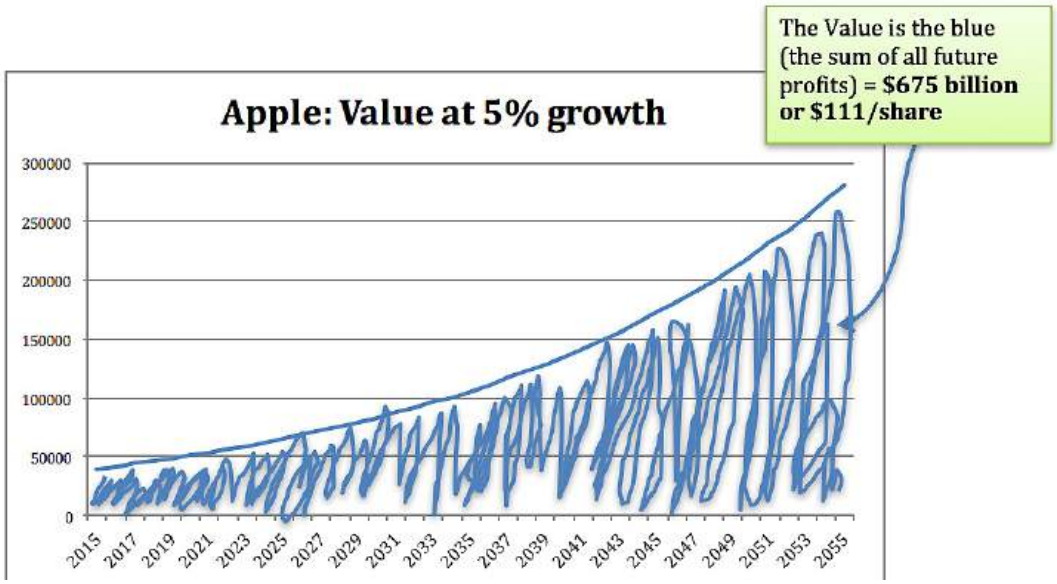
	Products sold	200 million
X	Average Price	$1,000 each
=	Sales	$200 billion
-	Product Cost	$160 billion ($700 + $100 X 200 million)
	Profit	$40 billion (or $200 per device)

QUESTION TO CONSIDER:

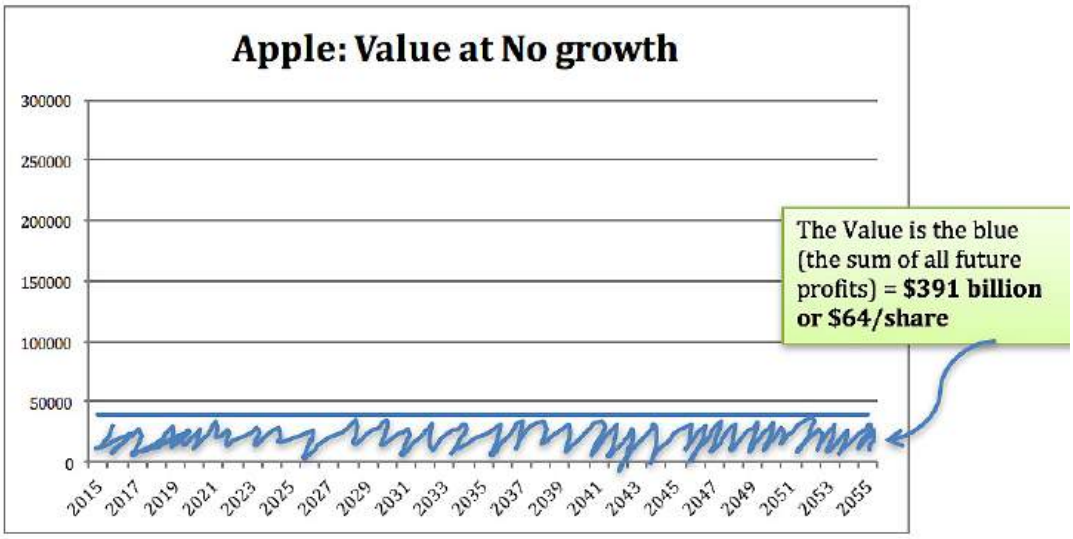
1. How much profit would Apple make if it sold 500 million products per year at the same price and the same profit per device?

Apple Financials, assuming that they sell 5% more devices per year at the same price:

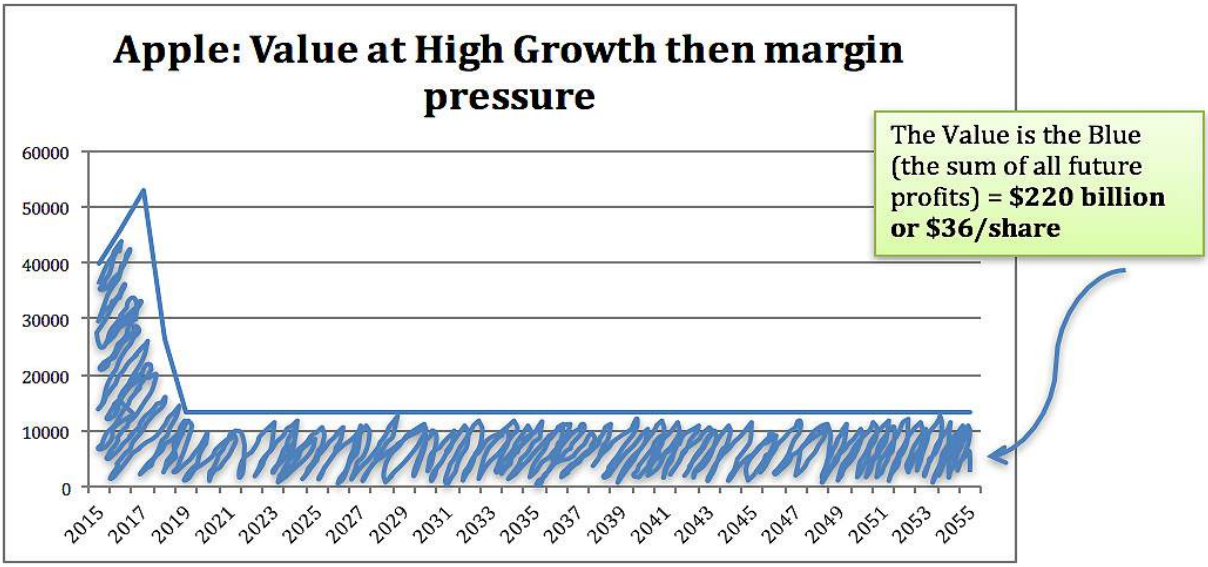
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CONT..
Price	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Sold (mn)	200	210	220.5	232	243	255	268	281	295	310	326	342
Revenues	200,000	210,000	220,500	231,525	243,101	255,256	268,019	281,420	295,491	310,266	325,779	342,068
Cost	-$800	-$800	-$800	-$800	-$800	-$800	-$800	-$800	-$800	-$800	-$800	-$800
Profit	**$40,000**	**$42,000**	**$44,100**	**$46,305**	**$48,620**	**$51,051**	**$53,604**	**$56,284**	**$59,098**	**$62,053**	**$65,156**	**$68,414**



Now let's tweak with the numbers. Let's say instead of growing 5% per year, Apple only manages to sell the same amount of devices every year going forward. The graph becomes flat and the total value of Apple is nearly cut in half to $391mn, or $64/share. At the current share price that means you're going to lose half your money.



Now, let's assume that Apple manages to have very strong growth of 15% per year for a few years, but in year four the company has competitive pressure and profits get cut in half. Then they get cut in half again and profits remain at this level going forward. The value of Apple plummets to $220bn or $36/share. Ouch!



So first we have the market definition of what a company's value is and second, we have tips and tricks from other investor geniuses. The value of what a company is worth really rests on just two questions:

1) How much are profits going to grow and
2) How long are these profits sustainable?

Those are the two things that determine how much value comes back to you in the long run as an owner of the business. 'How long will this last?' is probably the most important question you can ask yourself, in trying to figure out what a company is worth.

Now, even the best investors will tell you they have been dead wrong on the value of companies on many, many occasions. They'll also admit to you that for half of the companies on the market, they frankly have no idea what the true value of the company is. Why? Because the future of many companies is too uncertain to predict.

If you don't know how long those profits will last, you can't compute what the company is worth. For most companies it is a wild guess how long those profits can last because they don't have any real defenses. They don't have an economic moat. The good news is that there are some exceptional companies with a substantial moat around their castle that we know can't be competed away easily. By investing in these high-quality businesses we can have much more assurance that they will have a good value today as well as tomorrow. These are the companies we can feel confident that we are at least in the right ballpark when calculating their long term value. So when Mr. Market comes to us in one of his bad moods wanting to sell us shares of really great companies at a discount, we say, "Sure! Give me all you got!"

ACTIVITY: ONLINE VS. STORES?

Question: Why do you think Amazon.com (Ticker AMZN) has nearly the same market cap as Walmart (Ticker WMT) even though it makes less today in profits? Which company do you think will be valued more in 10 years?

Go to Finance.Yahoo or other resources. Discuss the following:

1) Who is growing sales faster?
2) Who is growing profits faster?
3) Which business do you think has profits that are more sustainable?

SECTION 3

UNDERSTANDING THE TERMINOLGY

A company's worth – its total value – is called its ***market capitalization*** and it is represented by the company's stock price. ***Market cap (as it is commonly referred to) is equal to the stock price multiplied by the number of shares outstanding.***

For example, a stock with a $5 stock price and 10 million shares outstanding/trading is worth $50 million ($5 x 10 million). If we take this one step further, we can see that a company that has a $10 stock price and one million shares outstanding (market cap = $10 million) is worth less than a company with a $5 stock price and 10 million shares outstanding (market cap = $50 million). Thus, the stock price is a relative and proportional value of a company's worth and only represents percentage changes in market cap at any given point in time. Any percentage changes in a stock price will result in an equal percentage change in a company's value. This is the reason why investors are so concerned with stock prices and any changes that may occur since even a $0.10 drop in a $5 stock can result in a $100,000 loss for shareholders with one million shares.

QUESTIONS TO CONSIDER:

1. *What is the Market Cap of a Company with a stock price of $20/share and 10 million shares outstanding?*
2. *What is the current Market Cap of Apple? How many shares do they have outstanding and what is the stock price?*

The next logical question is: Who sets stock prices and how are they calculated? In simple terms, the stock price of a company is calculated when a company goes on sale to the public, an event called an **initial public offering**. This is when a company will pay an investment bank a lot of money to use very complex formulas and valuation techniques to derive a company's value by determining how many shares will be offered to the public and at what price. For example, a company whose value is estimated at $100 million may want to issue 10 million shares at $10 per share or they may want to issue 20 million at $5 a share.

As we saw in the example with Apple, a company's value is dependent on how much the company can grow its earnings in the future. When a company sells more items or enters a new market or improves margins, it can grow profits.

THE "GO-TO" WAY TO VALUE A BUSINESS: P/E RATIO

One way to determine the value of a business is with the Price-to-Earnings Ratio or P/E Ratio.

The price-earnings ratio can be calculated as:

Market Value per Share (Stock Price) / Earnings per Share

For example, suppose that a company is currently trading at $43 a share and its earnings over the last 12 months were $1.95 per share. The P/E ratio for the stock could then be calculated as $43/$1.95, or about 22x.

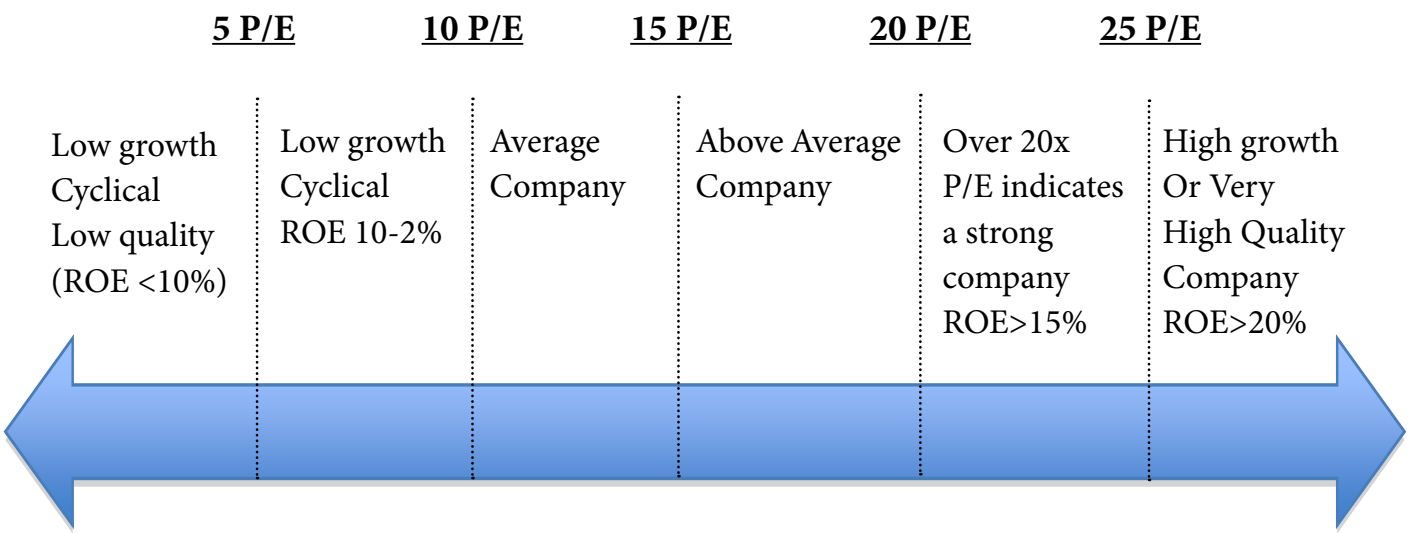
In essence, the price-earnings ratio indicates how many years an investor has to wait at the current earnings to get all their money back. If the P/E ratio is 22x, you are saying at this level of earnings, it will take you 22 years for the company to earn how much you bought the stock for $43. In general, a high P/E suggests that investors are expecting higher earnings growth in the future compared to companies with a lower P/E. A low P/E can indicate either a company may currently be undervalued or the company's profits are expected to decline.

Think of a P/E as the price you pay for a stock.

In general, there are a couple of Price / Earnings (P/E) rules of thumb:

- The average P/E over the past decade is 15x. An average company, should be worth about 15x.
- Really great companies (very high returns with consistent earnings growth) tend to trade about 20-25x P/E.
- Bad companies, ones whose earnings are unpredictable and make low returns, usually trade at below 10x P/E.
- A company should trade at about the P/E as its earnings are expected to grow in the future. Companies growing profits 30% per year may be justified to trade at 30x P/E. Companies growing 15% per year may trade at 15x P/E. Companies not growing may trade at 5-10x P/E.

Here is a quick chart to gauge what the P/E Ratio should be:



As you can see, valuing stocks is like going to a grocery store. You get what you pay for. If you want to buy the best product, you're likely going to have to pay for it.

KEY TAKEAWAYS

1. Stocks fluctuate wildly on a yearly basis. The true value of the business does not actually change much.
2. The reason behind this is that there is a man named Mr. Market that is just plain NUTS!
3. If someone offers you a dollar for fifty cents, take it!
4. The two most important things that determine the value of a company are 1) how much profits are going to grow to and 2) how long that profit level is sustainable.
5. The P/E ratio is a good starting point to determine the value of a company.

LESSON 3:

WHAT MAKES A GOOD BUSINESS?

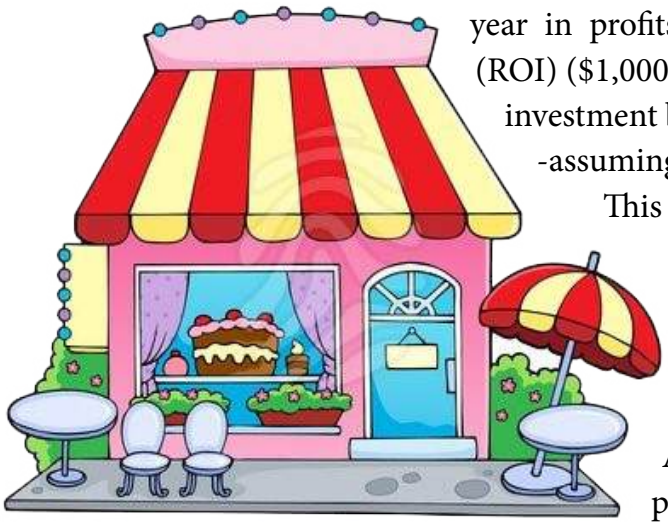
Introduction

Think finding a good long-term business is easy? Just take a quick look at history and you'll see that only a handful of companies survive over time. For example, create a list of businesses that have failed or gone bankrupt in the past 20 years. (Examples: Chrysler, Enron, Delta Airlines, Countrywide Mortgages, and Lehman Brothers) Why do you think that some companies succeed while others fail? How can we identify the winners from the losers for investment purposes?

SECTION 1

HOW DO I KNOW IF A COMPANY IS A GOOD BUSINESS?

Imagine we have two friends who will both open a small business. Our first friend, Jack, wants to open a chain of candy stores called "Jacks Candy Shop." It will cost him $2,000 to build and each will earn him $1,000 per year in profits. That's a whopping 50% return on investment! (ROI) ($1,000/$2,000) In two years, he will have made his $2,000 investment back. In four years, he will have doubled his money--assuming the stores stayed just as profitable at $1,000/year. This is certainly a pretty incredible business.



Now, our other friend, Jill, wants to open a chain of specialty pet stores called "Just Rodents." It also costs $2,000 to build per store, but it's a bad business-- (who wants to own a pet rat, right?). And additionally, it only makes $40 per year in profits, or a 2% return on investment. ($40/$2,000) Both stores cost the same to build but one simply makes more than the other.

Both owners approach you to potentially invest and buy half of their respective stores for $1,000 each. **Do you invest in Jack's Candy shop or Jill's Rodent Shop?** Of course, the answer is obvious: you choose the higher return business (50% in this case).

A business that earns a high return on capital (or sometimes called return on equity or ROE) is always the best business. Think of the ROE as the amount that a business gives back to you each year as a shareholder. It's the difference of receiving a $20 bill each year or a $10 bill each year. A 20% ROE (return on equity) is better than a 10% ROE and Jack's 50% return on capital business is phenomenal. But, is a business that earns a high ROE today always worth more than one that earns a lower ROE today? Not necessarily.

Take this example: Would you rather receive $20 dollars today and then $10 dollars-a-day for the rest of your life, or $15 dollars today and $15 dollars-a-day for the rest of your life?

Answer: You'd definitely want to take $15 for the rest of your life. (The difference, in case you're curious, is that you'll receive $350k for the $15/day and $233k for the $10/day).

So, Jack's Candy shop earns a fantastic 50% return on equity today. And this is great-- but since everyone knows what the business is earning today, the real question is: can they keep earning those high returns years into the future? What happens when the Ice Cream Shop in town realizes that Jack's Candy Shop is making amazing profits, so they start selling candy in their store as well? What happens when a retail giant like Wal-Mart decides to open their own Candy stores to compete? Does Jack have to lower his prices so that he only makes $200 profit per store, and that 50% ROE becomes 10% over time? These are the key questions a savvy investor must ask himself.

There are a couple of important laws in investing. Much like the law of gravity, Murphy's Law and under the laws of economics, any time a business like a candy shop earns exceptionally high returns, forces will come in to reduce those returns. If Jack's candy shop is earning a 50% return on capital, like a magnet, this is certainly going to attract more people to open candy shops, charge lower prices, advertise more, and eventually those returns will be reduced. This is economics 101: If a company earns a return on capital above the average, competition is going to come in and compete it away. High returns on capital attract competitors like bees to honey. And most high returns end up being whittled down to average over time.

Unless, however, this company has something unusually powerful that others can't imitate. Warren Buffett called this an "economic moat". Like a medieval castle, some very good companies are protected by a wide moat to keep competitors at bay.

The best companies are the ones that provide high returns on capital, but are also able to protect and grow those returns through a unique protection (moat) that makes it very difficult for those competitors at the gates to come in and take them away.

QUESTIONS TO CONSIDER:

1. *If Wal-Mart decided that Candy Shops were a great high-return business, would their Candy Shops be better, the same, or worse than Jack's Candy Shops? What do you think would happen to Jack's return on capital if Wal-Mart is now a direct competitor?*

2. *What is an economic moat and why is it important for the long term success of a company?*

SECTION 2
WHATEVER FLOATS YOUR MOAT

Bigger is not necessarily better when it comes to digging an economic moat. It is very easy to assume that a company with a high market share also has a sustainable competitive advantage—how else would it have acquired such a big chunk of the market? —But history shows us that leadership can be fleeting in highly competitive markets. Kodak (film), IBM (PCs), Netscape (Internet browsers), General Motors (automobiles), and Corel (word processing software), are only a few of the firms that have discovered this.

In defining an economic moat, what should you look for? There's a couple types of moats that have been proven to last the test of time. Here's your list:

Types of Economic Moats

- Intangible Assets: A company can have intangible assets, like brands, patents, or regulatory licenses that allow it to sell products or services that can't be matched by competitors.
- High Switching Costs: The products or services that a company sells may be hard for customers to give up, which creates customer switching costs that give the firm pricing power.
- Network Effect: Some lucky companies benefit from network economics, which is a very powerful type of economic moat. It says that the more people you have on your platform or in your distribution system, the better the value for them, which creates a virtuous cycle.
- Low Cost Advantage: Finally, some companies have cost advantages, stemming from process, location, scale, or access to a unique asset, which allow them to offer goods or services at a lower cost than competitors.

These four categories cover the vast majority of firms with moats. Now that you know them, you can begin to identify them. They are used by the best stock investors to identify great companies.

QUESTIONS TO CONSIDER:

1. Can you name one business that you think has a "wide moat"? (one that is unlikely to have its competitive market position eroded 10 years from now).
2. Can you name one business that you think has a "narrow moat" (one that has a good business today, but whose high returns are unlikely to last 10 years from now).

3. Can you name one business that you think has "no moat" (one that is a highly competitive, bad business today and in the future as well).

QUICK MATCHING GAME:

The following companies have stood the test of time, which probably indicates they have some sort of economic moat. Can you identify what their economic moat is? (brand, high switching costs, network effect, low cost advantage)

- Coca Cola
- Bank of America
- Google
- Wal-Mart
- Exxon Mobil

Hint: There can be more than one per company!

Warren Buffett

"Time is the friend of the wonderful company, the enemy of the mediocre."

Conclusion

All businesses are not created equal, some are bad, most are average, but some are really, really good. Selling candy is better than selling rats, and even better is to sell Coca-Cola or iPhones. The goal of the long term investor is to identify really good companies that can earn high returns on capital for decades into the future. The only way to defend these high returns though is with a deep economic moat.

Types of Economic Moats

- Intangible Assets / Brands
- High Switching Costs
- Network Effect
- Low Cost Advantage

The surest way to make money in the stock market is to invest in good companies that make exceptional returns and can defend these returns for decades into the future. In this lesson, you learned how to identify these companies. If you master this skill, you will gain one of the most valuable investing tools a great investor will ever learn.

KEY TAKEAWAYS

1. Most businesses will fail.
2. There are some exceptional businesses out there that have an "economic moat".

3. Great companies have the economic moats of Brand, High Switching Costs, Network Effects or a Low Cost Advantage.
4. Don't open a rat store.

ACTIVITY

Good businesses have something unusual about them. They have a product or brand image or network effect that is so strong that you can be certain they will retain their advantage for many years to come. This type of business has some unique characteristic(s) that can't be replicated.

For example, the year is 2005. Kelly Clarkson just won American Idol. Facebook and YouTube were just launched. Brad Pitt and Jennifer Aniston were still married. Yikes. 11 years ago!

Which company do you think managed to keep their return on capital (ROE) over the next decade (2005-2014), in line or higher than the previous 10 years? i.e. retained their moat

Apple: 13.7% ROE (1995-2004)

Company Background:
Makes computers, phones, sells software and apps, and operates retail stores

2005-2014: ?

Hewlett Packard: 12.2% ROE (1995-2004)

Company Background:
The largest computers company in the worlds. Also sells software services

2005-2014: ?

The answer of course is Apple. Apple increased from 13.7% to 30.9% return on equity (ROE) compared with HP whose ROE decreased from 12.2% to 10%. People simply like iPhones more than PCs, and Apple has a much stronger brand image, ecosystem around its products, and quality of design than HP. Specifically, Apple benefits from the economic moats of 1) a strong brand (they price their products at a premium) and 2) high switching costs (the Apple ecosystem makes it costly to switch to Android or Windows once you've bought movies, music and apps on iTunes). HP really just makes another run of the mill computer for cheap. And their stock prices? Stock performance follows company performance, so Apple's stock increased 975% while HP increased by a measly 40% over the time period.

ALIEN INVASION ACTIVITY:

Situation:

The year is 2005, and Aliens have invaded earth! They are going to destroy every human in the world, except they notice something they don't understand: how is it possible that some imaginary creatures, called "Companies" can be so dominant. They assume it will lead them to universal domination if they can discover the secret. So they make all humans a wager: if anyone is smart enough to know the secret of how to identify what companies will continue to make the same or higher return on equity over the next decade, then you get to live. If you can't, you die!

You will have a series of four tests. Only one of the two companies on each list could be defined as highly defensible, exceptional businesses that can protect its return on capital. Can you identify it? Your life depends on it. The aliens want to speak to "your leader" so you should debate on what to pick within the club, and eventually the portfolio manager will decide which stock to choose for the group. Ready earthlings!?

Question 1

Walt Disney: 12.6% (1995-2004)

Company Background: Operates Theme Parks, Makes Movies, Sells Merchandise, owns ESPN Networks and Disney Channel.

2005-2014: ?

Nintendo: 15.1% (1995-2004)

Company Background: Makes video game systems, video games, including Nintendo Wii, and Nintendo DS.

2005-2014: ?

Questions to think about:

1. What were the main things that happened to Disney and Nintendo during the next decade (2005-2014)?
2. What could you identify as Disney's moat? What about Nintendo's?
3. What is it about that businesses that makes them sticky? Is one "stickier" than the other?

Question 2

Abercrombie & Fitch: 55.0% (1995-2004)

Company Background: The most popular clothing retailer for teenagers, with very strong brand appeal

2005-2014: ?

Coca Cola: 17.9% (1995-2004)

Company Background: The leading beverage company in the world with the brands Coca Cola, Sprite, Fanta, PowerAde

2005-2014: ?

Question 3

Southwest Airlines: 13.2% (1995-2004)

Company Background: A well-run airline that is known for low-cost airfare.

2005-2014: ?

McDonalds: 17.1% (1995-2004)

Company Background: The leading fast food operator in the world.

2005-2014: ?

Question 4

Microsoft: 25.2% (1995-2004)

Company Background: Maker of Computer Software: Windows, Microsoft Office and Xbox Vid.

2005-2014: ?

Verizon: 20.8% (1995-2004)

Company Background: Leading cell phone operator in the US. Operates cable and fiber optic networks.

2005-2014: ?

Round-up:

Did you survive? If not, what tripped you up?

If you keep practicing and become a student of businesses, pretty soon you'll become a pro at identifying economic moats within companies around you. When you've learned it, it's one of the most valuable skills you will ever learn in the business world.

ANSWERS TO ACTIVITES

QUICK MATCHING GAME:

1). Coca Cola – Brand, Network Effect (Distribution around the world)

2). Bank of America - High Switching costs, (It's a pain to switch banks, so most people don't).

3). Google - Network Effect (the more people that use Google search, the better it becomes)

4). Wal-Mart - Low Cost (Wal-Mart's buying power allows them to buy products at the lowest cost) and Network Effect (Superior distribution and supply chain).

5). Exxon Mobil - Low Cost (Exxon has low-cost oil fields that make money in almost any oil price)

ALIEN INVASION ACTIVITY

Question 1: Walt Disney vs. Nintendo?

Answer: Walt Disney

Results: Walt Disney went from 12.6% ROE (1995-2004) to 13.01% (2005-2014) while Nintendo went from 15.1% ROE (1995-2004) to 9.4% (2005-2014). The stock prices? Disney was up 298% and Nintendo was down 11.5%.

Rationale: Walt Disney Corporation has a strong brand of characters and theme parks; not to mention that ESPN is the most profitable television stations in the world. Their brands are about as strong as they come, just ask any kid under the age of 10. Nintendo, on the other hand, does have a decent brand, but video games are a hit and miss business. Nintendo actually lost money in 2011 and 2013 because of poor sales.

Comparative Stock Charts using StockCharts.com

Question 2: Abercrombie & Fitch vs. Coca Cola?

Answer: Coca Cola

Results: Coca Cola went from 17.9% ROE (1995-2004) to 29.5% (2005-2014) while Abercrombie & Fitch went from 55% ROE (1995-2004) to 16.4% (2005-2014). The stock prices? Coca Cola was up 110% and Abercrombie & Fitch was down an astonishing 56%.

Rationale: Coca Cola is probably one of the strongest brands ever built. They also have a **distribution advantage** (network effect) throughout the world as they dominate the soft drinks industry with over 50% of global sales. Abercrombie & Fitch is a clothing retailer, which is a very difficult business. Just think about going into a mall, there are hundreds of competitors, and the viability of the business in the future depends on staying "cool" and being on the cutting edge of fashion. Very tough to predict given the high amount of competition. Both companies would have a "brand" but this shows that one brand is much stronger than the other.

Comparative Stock Charts using StockCharts.com

Question 3: Southwest Airlines vs. McDonalds?

Answer: McDonalds

Results: McDonalds went from 17.1% ROE (1995-2004) to 29.3% (2005-2014) while Southwest Airlines went from 13.7% ROE (1995-2004) to 7.5% (2005-2014). The stock prices? McDonalds rose 178% and Southwest Airlines actually held in there ok, up 157%.

Rationale: Although you might not care for Big Macs, McDonalds is still a legendary brand, especially overseas where it is a symbol of the American lifestyle. Their greater scale also enables them a cost advantage relative to other fast food chains. Southwest Airlines, is the best of a really terrible business: Airlines. It's an example of the investment adage "it's better to bet on a good horse than a good jockey," meaning a bad business with great managers is likely a losing bet. Airlines are capital intensive (planes are expensive!) and are highly competitive on price. During this decade, Delta Airlines, Continental, and American Airlines all went bankrupt, so at least Southwest didn't go bankrupt.

Comparative Stock Charts using StockCharts.com

Question 4: Microsoft vs. Verizon?

Answer: Microsoft

Results: Microsoft went from 26.2% ROE (1995-2004) to 35.1% (2005-2014) while Verizon went from 21.2% ROE (1995-2004) to 15.0% (2005-2014). The stock prices? Microsoft rose 78% and Verizon rose 73%.

Rationale: Microsoft benefits from one of the most powerful economic moats, the network effect. People use their office products (Microsoft Word, Excel) because everyone else does, which makes it the standard. Windows is also the standard operating system for most businesses. One could argue that Microsoft was one of the poorest run companies during this decade (throwing away billions of dollars into Nokia, mobile phones, Bing), but it didn't matter. The network effect was too powerful for even incompetent management to break. Verizon, is not a bad business, with a pretty good brand and a network effect (the more friends and family that are on Verizon the more valuable it is to you), but owning fiber optic cables and towers is a very capital intensive business so high returns are tougher to sustain. Not to mention Verizon was late to get the iPhone.

LESSON 4:

FINDING STOCKS TO INVEST IN

Introduction

Looking for good stocks is a treasure hunt. Identifying an exceptional company is rare, but finding an exceptional company that is on sale is truly a feat. But the good news is it's not impossible! Deals are almost always out there. You just need to know where to look. It requires some searching, some diligence, and a lot of homework, but it's certainly worth it.

Discussion Question: Think of things that you spend money on every month (examples: Netflix, Chipotle, video game monthly subscription, new clothes, etc.). What makes these purchases so "sticky"? Could these companies make for good investments?

Besides investing in companies whose products you use, you can also find fantastic stock ideas by reading reports written by other investors and by doing stock screens (more on what this is later) to search for specific variables. We'll show you how!

SECTION 1

HOW DO I COME UP WITH INVESTMENT IDEAS?

Now, we're getting to the fun part - picking stocks. But where do we start? One common investment motto is to "***invest in what you know***." This is a good place to start, but we also need to be careful. Many companies we know are actually terrible investments. For example, let's go back 15 years. In the year 2000, what were the companies that the average person knew? We shopped at Sears every weekend, we surfed the internet on Netscape, we took pictures with Kodak film, we bought GM cars and we flew on Delta Airlines. Alright, sweet! Load up a portfolio of the things we know!

The problem is that all five of those well-known companies would go bankrupt in the next decade and we would lose all our money. Just because something is well-known, doesn't mean that it's a good business.

Warren Buffett taught that we do indeed want to own **simple, easy to understand businesses, but that these businesses need a competitive moat around them**. The problem with all of the businesses we mentioned before is that none of them really had a protective moat around them. Sears was out-priced by Wal-Mart, Netscape lost out to Microsoft Explorer, Kodak was uprooted by a change in the technology, GM's cars went out of favor, and Delta went bankrupt along with just about every other airline. (By the way, if you want a business that is good at torching piles of cash, airlines are always a good place to start!)

So how do we start finding truly good businesses? Remember back to Lesson 3 on Economic Moats.

Start by asking yourself a few questions:

- What products am I happy to pay a price premium for because the service they offer can't be replicated by another? (Brand, Quality)
- What services do I continue paying for because switching services would be too costly or a huge inconvenience? (High Switching Costs)
- What platform do I use because it is the only one where I can meet up with a certain type of people and because the network or marketplace can't even be compared to a peer? (Network Effect)
- What products have been around for generations – you can picture your parents and grandparents enjoying them and easily picture your grandkids enjoying them as well? (Sustainability, Brand)

Legendary investor Peter Lynch, who averaged a 29% return per year over 23 years at Fidelity, tells the story of his wife coming home from the grocery store and mentioning a new product – pantyhose in an egg shaped case called "L'eggs." She raved about what good products they were. He also noted that she was picking up more pantyhose than ever, because she was visiting the grocery store twice a week compared to the department store which she only visited maybe every other month. With this knowledge in hand, he began aggressively buying shares in Hanes, the maker of the L'eggs pantyhose. The stock became a 30-bagger for his fund, meaning it didn't just double or triple, it went up 30x! He found the idea, not from the Wall Street Journal, but from paying close attention to how people were using the products around him. Peter Lynch's legendary book One Up on Wall Street is a great resource to see how one of the most successful investors of his time came up with some of his best investment ideas.

ACTIVITY: CAN'T LIVE WITHOUT IT

Make a list of three companies that have products that you "can't live without" considering the questions above. Do you think this company could make a good investment?

SECTION 2
STOCK SCREENS

Another useful way to search out great stocks is to run a **stock screen**. Basically, when you run a stock screen you are running the stock market through a giant filter to sort out the characteristics that you want. It's similar to choosing a car: you know you want a blue, four-door car with good gas mileage, at a certain price, with a minimum horsepower. You put all this info into a search engine and come out with your "Goldilocks" car. The concept is similar for a stock screener. When you know what to look for, a stock screen is a wonderful starting point.

These are some of the financial characteristics that you should screen for among your initial list of investment candidates. Ideally you want to find a **great company** that is **growing** and you can **buy cheap.** Here are a couple of factors you can look for:

- A business that has very stable earnings, with little fluctuation year to year
- A company that has positive cash generation (Cash generation is the cash profits minus the investment costs to grow the business.)
- A company that consistently makes a healthy return on capital
- A company that pays a dividend that grows consistently every year

One of the most popular (and free!) stock screeners out there is Google's. Below is a screenshot.

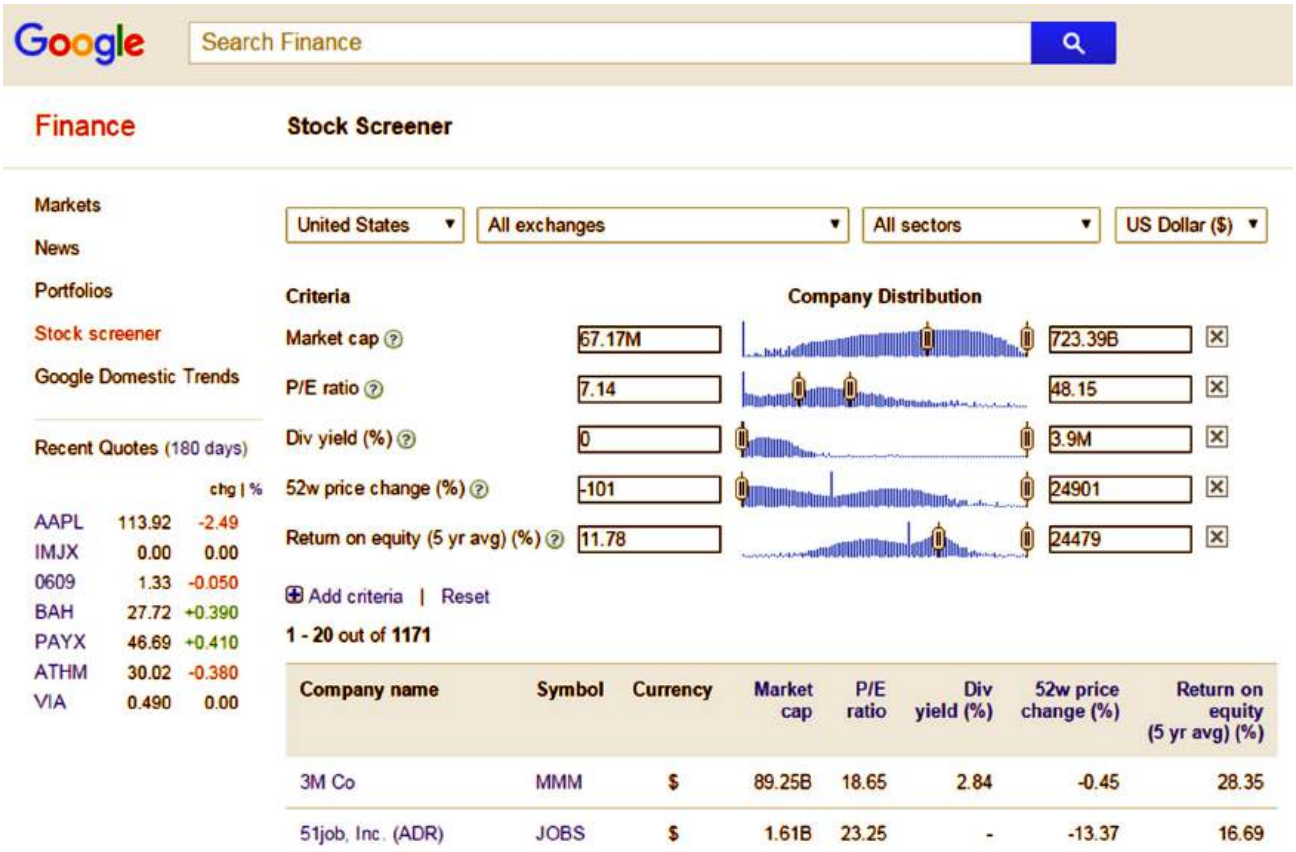
https://www.google.com/finance/stockscreener?hl=en&ei=jjr7VYH_KdaL0ASusarQCg

Google's Stock Screener allows you drag the range for a number of different criteria. It also allows you to go to "Add Criteria" and customize what you want to screen.

There are many different metrics to screen for, but here are some helpful starting points:

(If you see terms you don't recognize below, refer to the glossary at the end of this page or investopedia.com)

Go to Google Stock Screener and start playing around with the following screens.



IS THE COMPANY GOOD?

- 5y Return on Equity: greater than 12% (Also use Return on Investment)
- Good companies often have high margins (Gross Margin > 30%, Operating Margin > 15%)
- Interest Coverage above 3 times
- Stable earnings and Return on Equity through the years (look at a chart, or look over the past 10 years, on Morningstar.com or zacks.com)

IS THE COMPANY GROWING?

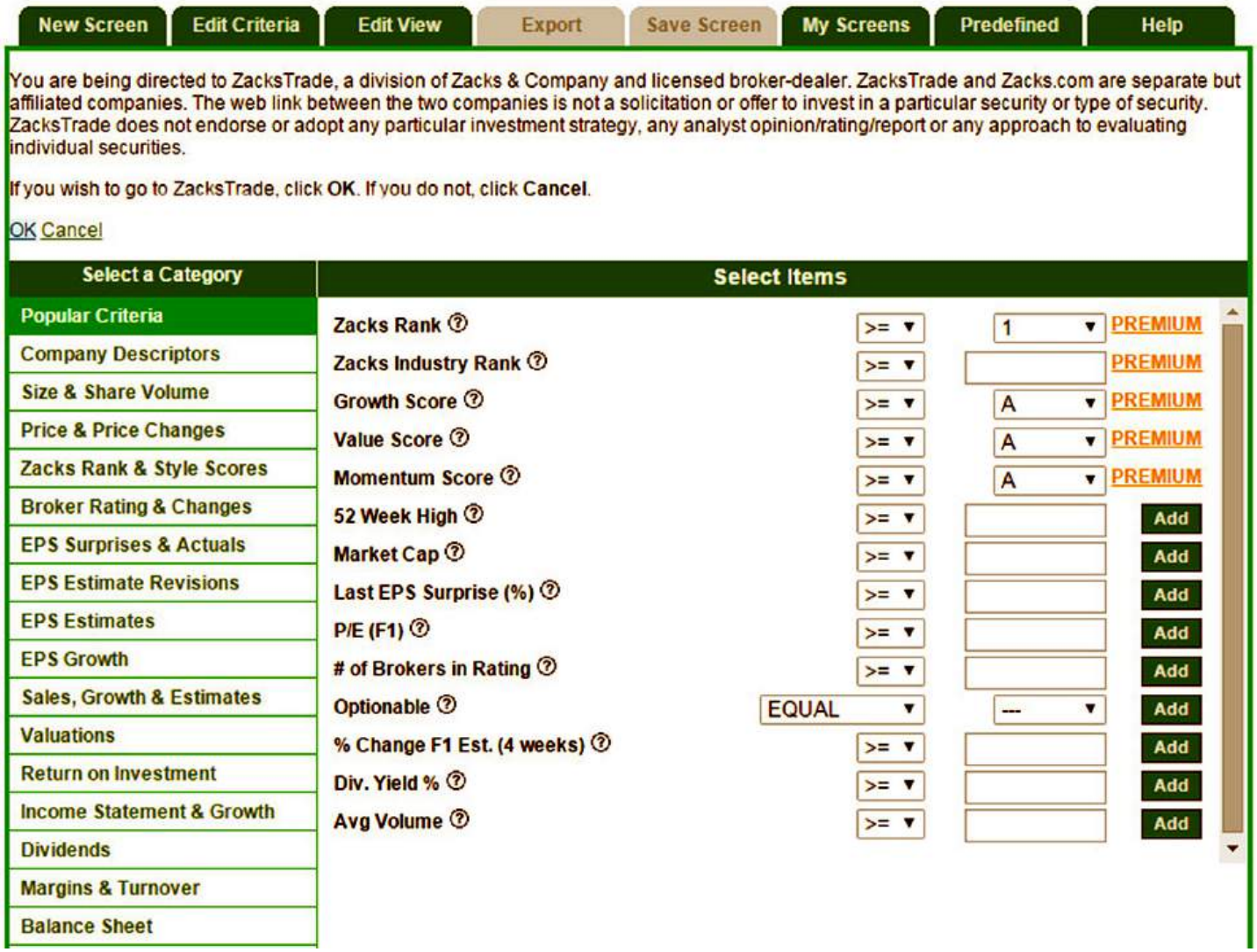
- 5y revenue growth greater than 4% per year
- 5y earnings growth (and EPS) greater than 4% per year
- Forecasted growth in the next 5 years

IS THE STOCK CHEAP?

- P/E ratio below 15x (market average)
- Dividend yield above 3%
- P/Book ratio below 2x

* Note, just because a company doesn't meet all of these thresholds does not automatically mean that the company is not a good investment. A very high quality company that is growing and that is very cheap is ideal, but is very rare. If you're trying to buy a new Ferrari under $10,000 you aren't likely to find many results. Tradeoffs will often need to be made, but the best investors stay disciplined and find the best combinations.

Additional Stock Screening Tools:



There are many free stock screening tools available online. Other useful screeners are Zacks.com (screenshot in on the right), Yahoo Finance, GuruFocus (subscription required) and Uncle Stock.

As you learn more about the stock market and read stories of successful investors, pay attention to what metrics they examine. For example, some successful investors look for high growth companies (companies growing more

than 20% per year) that also have high margins (gross margin above 50%). These would be considered growth investors. Other successful investors look for very cheap companies (Price / Book below 1x). These would be considered deep-value investors. There are many ways to successfully invest, and screening helps give you a great starting point.

THE S&P 500 & THE DOW JONES:

One more list that is helpful is the Dow Jones Industrial Average. These are 30 of the largest and most significant companies in the United States. There will be many companies on this list that you will know, and these are companies that have been leaders for decades and even centuries, such as IBM, Procter & Gamble and Nike.

Next you could look at the S&P 500. Here you will find a list of 502 companies (not exactly 500, some companies are listed twice!) that represent the largest, most common companies in the United States. As you scan through these lists you can think to yourself:

- Does that sector look interesting?
- Do I know and like this company's products?
- Do I have certain expertise about this company's products that would give me an edge?
- Do I expect this company to grow?

Or just click on a company randomly and see where it takes you. You might find your treasure.

See a list of the current Dow Jones components in the Activity Section of this lesson. Search online for the full list of S&P 500 companies.

SECTION 3

RESEARCH REPORTS:

One of the best sources of investment ideas is other investors! Remember, there's no rule in investing that says you can't own a stock that another person owns. Cherry picking is encouraged! One way to find ideas is to read blogs or reports on stocks. Also, successful investment managers publish quarterly investment letters where they describe their top holdings and why they own them.

Here are a couple of places to start reading:

- Seeking Alpha: Seekingalpha.com is an excellent databank of investor reports on companies. Some of the writers are professional investors, some are not, but there is a plethora of articles written on companies, both large and small.
- SumZero: Similar to Seeking Alpha, sumzero.com is an online platform where investment professionals write investment reports and promote stock ideas.
- Wall Street Journal and The Financial Times: These are the two newspapers that every needs investor reads each day. Most people need to pay for online access, but you can read the articles for free if you copy the article's title into Google and access it through Google directly (a legal and very useful trick!).
- Motley Fool: Fool.com is an always-interesting mix of financial news, investment strategies, and large doses of humor balanced by hard hitting serious news and opinion. Tom and Dave Gardner and their talented staff have been delivering their unique and informed message since 1993 and the Fool is now a full-service financial media enterprise. If you'd like your investing information tinged with some pleasant sarcasm and edgy laughs, the Fool might be perfect for you.
- Jim Cramer: The host of CNBC's Mad Money and co-founder of TheStreet.com is a journalist, lawyer, and "infotainer" (his term). He's been dispensing financial and investment information to anyone listening since the mid-1990s. If you need a break from reading financial statements or waiting for your stock screener to advise you on your next hot investment, Cramer might add some zest to your day. A former hedge fund manager, Cramer has been in the investment trenches for some time. You may not agree with all that he says, but you will be informed and entertained.

- GuruFocus: GuruFocus.com tracks the stock trades of successful investment managers to see what they are buying and selling. It also provides stock recommendations based on different investment criteria and has a robust stock screening tool.
- Value Investors Club: Valueinvestorsclub.com is an online investment club where top investment managers come together to share their best stock ideas.
- Beyond Proxy: Beyondproxy.com is one of the most successful investment blogs. It compiles interviews with portfolio managers and stock reports.

Beyond this list, there are literally thousands of investor blogs out there. Some are good, some are not, and a few are truly excellent. The point is that there are many free sources available to provide thoughts on companies and the market.

GIVING DUE DILLIGENCE ITS DUE

Once we come up with a list of a few interesting companies to potentially invest in, it's time to roll up our sleeves and kick the tires. Remember that buying a stock of a company is really like buying a piece of that company – you are becoming a company owner! You would not make such a big decision before carefully considering your investment. Would you? It is funny that people often spend more time researching a movie to see or carefully studying the specs of a piece of electronic equipment they are planning to purchase than when buying a piece of their own company! In the early stages of the investment process, it is particularly useful to use the company's products first-hand.

Learn as much as you can about the company in which you are going to invest. Here are a couple of steps to think about when doing your company "due diligence" (as the pros call it).

Make sure the company is actually investible, or publicly traded. You can search for companies' stock tickers on Yahoo Finance, or Morningstar.com.

Go to the company website, click on the "Investor Relations" tab, and find a recent company presentation. This will give you an overview of the business.

Read through the more in-depth Annual Report, also on the company website. Sections to focus on are the Management Discussion & Analysis and the Segment Reporting.

Read other investors' opinions on the company on resources such as seekingalpha.com.

Look through the company's financials on sites like Morningstar.com. Evaluate the trends of the main company metrics.

Remember our Golden Rule #3, DO YOUR OWN HOMEWORK. As you follow these steps and use all the resources available to you to do your detective work, you will begin to know the company inside and out. Remember, great investors see things that others don't. They think outside of the box. They do their own work and develop a conviction in their investments.

The stock market "aggregates" or adds up all the opinions and knowledge of market participants to come up with what the "consensus" (or the general market) thinks a company is worth at any given point in time.

Some people will just follow the crowd and invest along with this consensus. But as a wise investor who has done your own homework, you will have a strong sense of how the company is likely to perform in the future and you can take advantage of the "misunderstandings" that take place in the stock market every single day. Scary news headlines may motivate other (perhaps less knowledgeable or prepared) investors to panic by selling the stock.

If you feel you got a great price on a stock you bought for the long-term, you are more likely to hold on to it through thick and thin. In our experience, this is almost always the right thing to do with the stocks of great companies. Here it is worth making a distinction between great companies and great stocks. In some cases, and especially in the short term, these may not always be the same thing. However, in the long run, since stocks are no more than pieces of companies, great companies are really great stocks.

QUESTIONS TO CONSIDER:

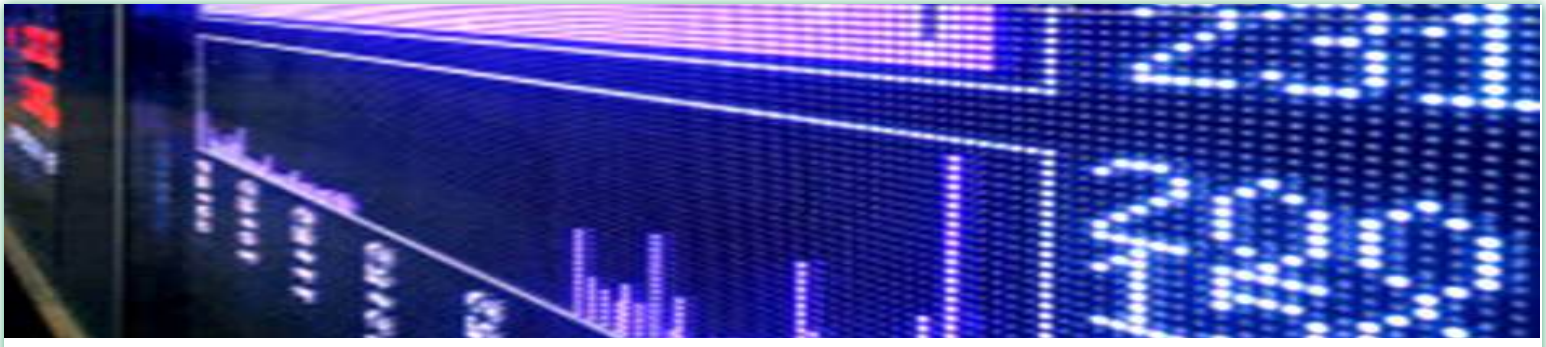
1. What does it mean to be a shareholder of a company?
2. How is it possible to believe in a company or know it so well that you are confident that you are right and the market is wrong about what it is worth?
3. Why does the market get it wrong sometimes?

After completing this lesson, you should start to use the skills you learned in Lessons 1-4 to make a list of companies you came up with by doing some detective work. You start out with products you know and like, but gather additional evidence by seeing what other consumers are doing. You begin to run your own stock screens. You know that by buying a stock, you become a

part owner of the company that issued that stock. You know that it is important to really understand the company so that you feel more comfortable trying to predict its future. You are now ready to go to the next step. You need to narrow your list to the stocks you really want to buy (the companies in which you want to be an owner). And you're learning how to hunt for treasure!

KEY TAKEAWAYS:

1. Finding great stocks is like a treasure hunt, a very, very rewarding treasure hunt.
2. Invest in what you know and do your homework.
3. Stock screens can be a powerful way to identify good companies.
4. Remember, there's no rule in investing that says you can't own a stock that another person owns! Reading research reports can be a great way to learn more about investing.



LESSON 5:

LEARNING TO SPEAK THE LANGUAGE OF FINANCE

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 be come!

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)

QUESTIONS TO CONSIDER:

1. 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.

QUESTIONS TO CONSIDER:

1. 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

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.

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.

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.

KEY TAKEAWAYS:

1. Finance has a language (accounting) that you learn how to speak.
2. There are three main financial statements, The Balance Sheet, The Income Statement and the Statement of Cash Flows
3. You need to be able to forecast a company's revenue and margins correctly if you want to invest in them.

ACTIVITY

Situation: MIXED UP FINANCIAL STATEMENTS Let's assume you 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 McMorran** (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	9,975
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

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

LESSON 6:

THE INVESTMENT THESIS

Introduction

Successful businesses start with a clear mission statement. Marriages begin with the exchange of vows. Similarly, successful stock investors begin with a clear investment objective, called an "Investment Thesis". This tells you why you own the stock and what you expect to happen. When deciding what a particular stock is worth, its intrinsic value, what we are really asking is "what is it worth to you"? A horse is worth more to a farmer than a sailor. A McDonalds happy meal is worth more to kids than, well, any other rational human being. Value is always in the eye of the beholder, and when you buy a stock, the beholder is you. For example, if you need a steady cash payment every year from a stock in the form of a dividend, and a company decides to stop paying its dividend, its Investment Thesis is no longer valid. This is critical to know.

In Lesson 4 we learned about legendary investor Peter Lynch said how he advocated buying companies that you know. He made a fortune off of buying Hanes stock because he wife liked the pantyhose. Peter Lynch said in one of his most famous quotes "Know What You Own and Know Why You Own It". In other words, when you buy a stock, you need to know the WHY. This is important because the value of a particular stock can rise and fall multiple times in a month, week, day and even in an hour! Instinctively, we want to buy more when a stock price is soaring, and alternatively, we want to sell as soon as possible when the price drops. But many investors get caught up in a "herd mentality" and react to price fluctuations like stampeding cattle based on the direction they perceive the market is heading. Stock prices rise and fall for various reasons as new information (good or bad, accurate or inaccurate) enters the market. In order to know whether this new information should affect your decision to buy, sell or hold stock in a particular company, it is vital that you develop your own "investment thesis."

QUESTIONS TO CONSIDER:

1. Other than in stock investing, can you think something in your life where it is essential to know the "WHY" of what you're doing? How does knowing the "Why" help you succeed?

SECTION 1

WHAT IS AN INVESTMENT THESIS?

Before investing in a company, we need to have a carefully thought out "Investment Thesis." An investment thesis is basically a simple and clear description of:

1. Why you own the company.
2. What you expect to happen.
3. What you see that the market does not give the company credit for.

Many experienced investors will tell you that there is hardly anything as valuable in keeping them focused and intellectually honest as this simple exercise. Remember that the principles to successful investing are simple, but the hard part is adhering to them through the ups and downs of the market. In this sense, the investment thesis becomes our anchor, even when the waters get rough or (even more difficult) when the waters stay calm for a deceivingly long time. If the thesis is still valid, nothing else matters. If the thesis may be at risk, nothing matters more.

Successful value investor Martin Whitman concluded:

"Based on my own personal experience – both as an investor in recent years and an expert witness in years past – rarely do more than three or four variables really count. Everything else is noise."

So how do we know which variables count and which are just noise?

Let's walk through an example using a company we all know, Apple. If we were going to buy stock in Apple, we would begin by understanding the competitive landscape. We would analyze their smartphone, PC and software peers. We would look at the company's strengths, weaknesses, opportunities and threats (also known as a **"SWOT analysis"**). We would analyze the financial statements and historical returns to shareholders. We would try to speak with someone at the company, speak with their suppliers, speak with customers, and speak with competitors. Now suppose after all of this, we determine that Apple is a great stock to buy. That it has a sustainable competitive advantage, and the stock price is substantially lower than what the business is worth. We then take out a pen and paper (or smartphone) and write down the main points of why we are buying the stock.

A sample "Buy" case Investment Thesis for Apple may look something like this:

- Apple's strong brand will enable the company to sell their products at premium prices. (BRAND)
- Apple's ecosystem of inter-connected apps, videos and music fuels a loyal and sticky user base. (ECOSYSTEM)
- Smartphones and tablets are in their early stages of adoption globally, offering significant growth potential. (GROWTH)
- Apple's management promotes a culture of innovation and design for consumer electronics, creating a platform for future product launches. (CULTURE)

On the other hand, maybe our research uncovers some concerns about that company so that we feel that Apple's current position may not be sustainable going forward and that the company is a "Sell". We may even short the stock, hoping to profit from its decline.

A "Sell" Investment Thesis for Apple may look something like this:

- Apple competes in the highly competitive industries of PC and smartphones.
- History has proven that commoditization for consumer electronics industry is inevitable, which makes Apple's premium prices and exceptionally high margins unsustainable.
- After the death of Steve Jobs, Apple's product innovation has noticeably deteriorated.
- Apple is heavily reliant on their supply chain of components, which they do not control, and which will limit future innovation.

Which thesis do you agree with? Perhaps more important than being right, is the mere fact that you are making a choice, writing it down, and constantly keeping yourself honest by referring back to it. Of course, that being said, you also want to be right!

Let's assume that you believe the first scenario, and you go ahead and buy shares in Apple. You sit happy knowing that every time someone in the world that goes out and buys and iPhone, they are earning you a small share of that profit. You even go out and buy yourself a new iPhone using that same argument, fantastic! But then the news starts pouring in: Samsung is launching a fancy newfangled smartphone next month. Apple's quarterly earnings were 10% below expectations and suddenly the stock drops by 20%. CEO Tim Cook

is having a bad hair day. What is going on?! Every day we wake up to either panic or euphoria in the news – how do we keep it all straight?

There is one simple trick -- constantly ask yourself the same question:

"Is the investment thesis still intact?"

For example:

Does Samsung's new smartphone have any impact on Apple's (1) brand power, (2) ecosystem, (3) growth, or (4) culture of innovation? If not, then it's just noise.

Does Apple's earnings for the quarter indicate anything about the company's (1) brand power, (2) ecosystem, (3) growth, or (4) culture of innovation? If not, then it's just noise.

Does Tim Cook's hairdo present any risk to the company's (1) brand power, (2) ecosystem, (3) growth, or (4) culture of innovation? Possibly, then for heaven sakes, get the man a comb! If not, then it's just noise.

When we develop the habit of constantly checking new information against our investment thesis, we learn to effectively filter out the noise.

But then let's say that through conversations with second-hand resellers of Apple products, we find out that a one-year old used iPhone that used to sell for $400 is now selling for $300. We inquire as to why, and we are told that customers are telling us that there are other phones available that are nearly as good and they simply aren't willing to pay a higher price for an iPhone. We also find that carriers are saying the same things. Now, we can legitimately begin to worry. There may be a crack forming in Point #1 ("Apple's strong brand power will enable the company to sell their products at premium prices"). If we find we can no longer defend a key point of the investment thesis, then we sell the company. Period. It is simply not worth the time and the risk.

QUESTIONS TO CONSIDER:

1. Do you agree more with Investment Thesis of "Buy" of Apple, or "Sell"?
2. Compare the Apple today vs. Apple of 2010, before the death of Steve Jobs, has the Investment Thesis been strengthened or weakened since then? What is the evidence to support your view?

SECTION 2

Case Study:

Portfolio Manager and founder of YIS, James Fletcher learned the power of the Investment Thesis early in his investment career. In 2007, he came across a company from South Korea that made online video games. Their existing games had a remarkably sticky user base paying subscription fees every month. The games had two powerful things that he looks for in companies: (1) a network effect -- the more kids that played the game the more attractive the game becomes and (2) high switching costs -- when someone invests seven years leveling up a character and amassing virtual items, they were unlikely to switch to another game and have to start over. The company had a rare competitive moat that was both wide and deep. But they hadn't had a hit game in a while, so the market was rather gloomy on the company despite what was considered to be a top-notch development team. As any parent who has had to try and pick a video game for their kids, the video game industry is an unpredictable "hit or miss" industry. Trying to forecast whether a game will be a hit is very difficult. It's often a roll of the dice. However, James took a long-term approach and built an investment thesis on three pillars:

1). the existing games would continue to retain their loyal user base and pay handsome returns,
2). despite being a "hit-or-miss" industry, the development team would eventually get a hit,
3). the current stock price implied no probability to a new game success.

Shortly after buying the stock, the company launched a new flagship game. Here it was! The game had all the makings of a blockbuster: substantial buzz in the gaming community, a legendary lead-developer, three full years of development, a huge marketing budget, and positive reviews. The game hit the shelves, and then... it flopped! It just simply didn't sell. James watched the stock price fall for the company by nearly 50% in a month. He felt sick to his stomach! He stumbled back to the drawing board -- his investment thesis -- and asked himself: was the original investment premise intact?

1. Did the company still have a sticky, loyal user base on existing games? Yes.
2. Was the development team still likely to have a hit game in the future? Yes.
3. Was the stock undervalued? Yes, even more so.

This meant that all of the despair in the market was actually just noise. Feeling a bit more comforted after reviewing the investment thesis, he continued to hold the stock. In 2008, the company launched another game. This time, expectations were even higher. The launch was timed for the holiday season and the game was a mix between car racing and online fighting--which every industry expert believed was a sure formula for success. The game hit the shelves and low and behold...another flop! The game mostly sat on the shelves and everyone that bought the game ended up returning it because there was no one online to play it with. Investors were exasperated and the stock plummeted by another 40%. James' clients began to notice poor performance. At this point, to his knowledge, James's company and its clients remained the only international shareholders to continue to own the stock, which by default made them feel both stupid and lonely. They even had the audacity to add to our position. But here is the reason why: not one thing had changed from the original investment thesis, except for the fact that the stock price looked a whole lot more attractive now than it ever had!

Some may call this sticking to your guns. Some may call this being just flat-out stubborn. Investors like to refer to this as "high conviction." Despite what you call it, however, James' conviction came from having a clearly defined investment thesis, giving him the ability to block out the noise.

The following year, the company launched another game that was largely ignored by the market because it was more of a niche game for an Asian audience. Everyone's expectations were rock bottom after the previous failures. The game was released and turned out to be one of the bestselling video games of all-time in Korea, and then later, a blockbuster hit in China. The stock price shot through the roof. Two years later the company followed it up with another successful game launch, and the stock climbed even higher. From James' initial investment, he had now made over a 500% return. He and his clients were dancing in the aisles.

Looking back, James recounts that the success was basically due to just one factor: "that I had written down those three simple bullet points down from the very beginning". He says if he had not he surely would have sold his shares when times get rough. Without the rock-solid conviction of why they owned it, they would have followed the herd and cut their losses. He was grateful he stayed true to his investment thesis.

QUESTIONS TO CONSIDER:

1. Discuss the reasons why it's difficult to keep holding a good stock when it is going down?

2. Discuss the reasons why it's difficult to sell a stock that you bought whose investment thesis may not be valid anymore?

CONCLUSION

In order to invest with confidence and properly filter out noise that might intimidate you, confuse you and cause you to make emotional decisions that could cost you money, it is important that you create an investment thesis of your own for every stock that you buy.

KEY TAKEAWAYS:

4. Know the stocks you own and know why you own them.
5. Creating and constantly re-evaluating an investment thesis is the most crucial tool to keep investors on-track and disciplined.
6. If news doesn't impact the investment thesis, then it is just noise. If new data gives us either higher conviction or higher concerns in our investment thesis, nothing matters more.

ACTIVITY: Creating Your Own Investment Checklist

Going hand in hand with creating an Investment Thesis for the each of the stocks that you own, is creating an overarching Investment Checklist. An Investment Checklist is the summary of your personal investment process. The idea of an investment checklist was created by famed investor Mohnish Pabrai, whose fund has earned a 517% return compared to the S&P 500 up 43% since 2000. The idea, according to Pabrai, is to create a series of Yes or No questions to ask yourself before investing in a stock to make sure you don't miss anything or make a mistake. A good Investment Checklist is like a constitution, a series of personal rules to make sure that you stay disciplined and focused. The goal is create a series of over-arching questions that will maximize your chances of finding great investments and minimize the chances of investing in a dud. Many successful investors such as Guy Spier and Charlie Munger (partner to Warren Buffet) also attribute the use of Investment Checklists as one of the hallmarks of their success.

Below is an interview with Mohnish Pabrai talking about how he uses Investment Checklists

https://www.youtube.com/watch?v=vkEUd_aju8c

It is never too early to start thinking about and creating your own Investment Checklist. Reflecting back on the things you have learned about investing through your YIS participation and other sources, consider the elements of what makes a

company an attractive investment (e.g., strategic advantage or economic moat). Consider the case studies above and other companies that have been analyzed during your YIS meetings. What are some of the characteristics of successful companies and investments that justify acquiring stock in the company? What are some red flags in investing that you want to make sure that you avoid?

Here are some examples of possible questions for an Investment Checklist:

1. Do I understand what is moving the stock price, what the market is pricing in, and where my view may be different?
2. Do I understand how the company earns money?
3. Does the company have a clear competitive moat?
4. Have I reached the investment conclusion on my own, and believe that even if people that like the stock now reversed their opinion, it wouldn't sway me?

Hint: Be sure to structure the checklist so for all the questions "Yes" means it's good to invest and "No" means don't invest.

Activity - Take 15 minutes and write down a few points that you want to be in your own investment checklist. When you are done, break into groups of four and share your investment checklist with your peers. Be open to any additional insights or suggestions that your peers may have regarding how you might improve and clarify your investment checklist.

Type your investment checklist on one page of paper, print it, and if possible, laminate it or use contact paper to preserve it. Commit to post your investment thesis in a place where you can review it when you review, execute trades and conduct your investment analysis.

LESSON 7:

INTRINSIC VALUE

Introduction

As a value-investor your focus is to buy companies whose stock prices do not actually reflect their true value, known as "intrinsic value". If you can successfully select companies to buy whose stock price is trading below their intrinsic value, then you'll be successful. Being able to correctly estimate something's intrinsic value is one of the most important skills of a master investor.

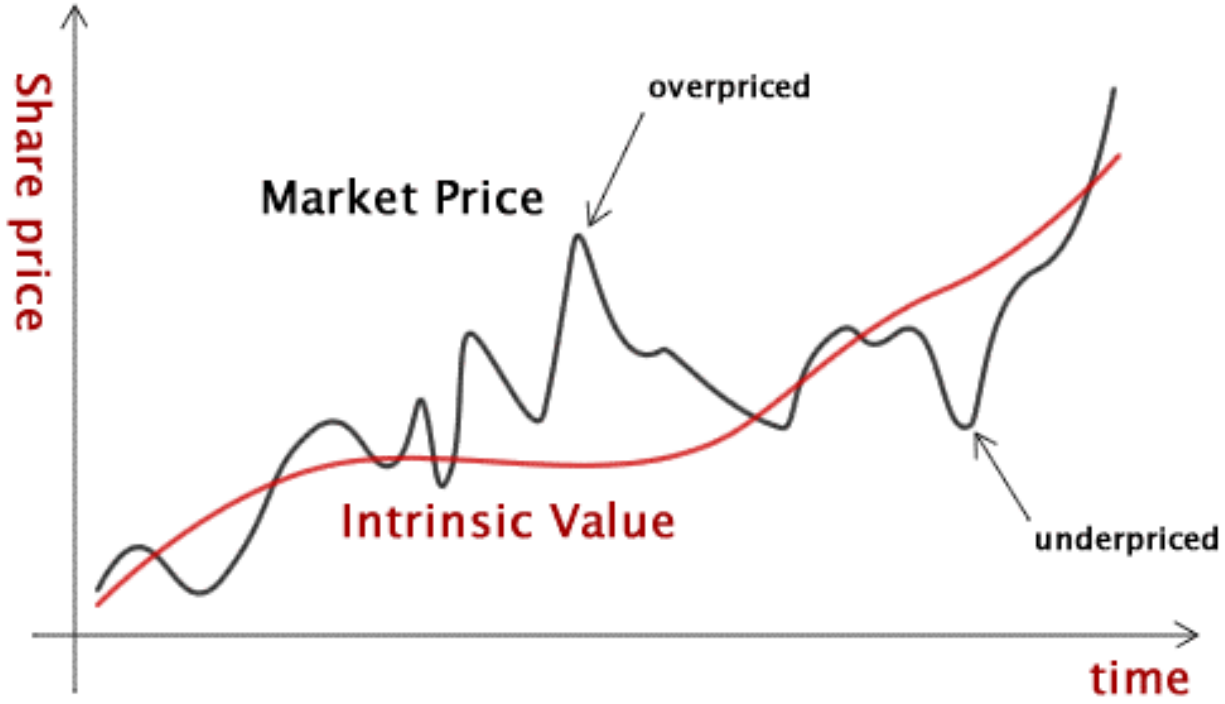
Looking at the graph below, when are the times that you want to buy to stock? When are the times that you want to sell the stock? Why do you think the market price is more volatile than the intrinsic value of a company?

"The newer approach to security analysis attempts to value a common stock independently of its market price. If the value found is substantially above or below the current price, the analyst concludes that the issue should be bought or disposed of. This independent value has a variety of names, the most familiar of which is "intrinsic value".

– **Ben Graham**, Security Analysis (1951 Edition)

"With the doubloon, you've got the intrinsic value of the metal plus the numismatic considerations."

Looking at the graph below, when are the times that you want to buy to stock? When are the times that you want to sell the stock? Why do you think the market price is more volatile than the intrinsic value of a company?



SECTION 1

Let's Buy a House

To get your mind working, let's imagine that you are going to buy a house. We will think of buying the house in the context of its book value, market value, and its intrinsic value.

Book Value

When the seller of the house first bought the house, they most likely placed a down payment, and financed the rest of the house with debt. Let's say for example that they bought the house for $200,000 and placed a down payment of $20,000. In essence, they paid $20,000, the bank gave them $180,000. In simple terms, we would say that the book value is the total amount of book equity plus the amount of liabilities. In this case, the book value would be $20,000 + $180,000 = $200,000.

Market Value

Remember that markets determine prices. Let's say we want to buy that very same house in 5 years. By this point, due to a shortage of houses and increased demand, similar houses are selling for $250,000. That same house, even though its book value is still $200,000 now has increased in value and the market has priced that house and similar houses at $250,000. The market value would be $250,000. This is the price that you would have to pay to buy that house. Should you buy that house for the $250,000? Is it actually worth $250,000?

Intrinsic Value

Now, let's take a deeper dive into the $250,000 market value or would-be selling price of the house. You really want to know if that house is worth $250,000. If you determined the house is actually worth $250,000, you would be comfortable buying it. If you determined it was worth less than $250,000, you would not buy it. If you determined it was worth more than $250,000, you would buy it in a heart-beat and consider yourself a value investor.

What are some things you should look at to determine if that house is really worth $250,000? You might look at the future housing market of that area. You might take a deeper look inside the house. You might look at the condition of the following: the kitchen, the roof, the yard, the appliances, the garage, the bathrooms, the rooms, etc. You also would need to take a look at how long that house will be able to support its residents. After you perform a thorough inspection of the housing market, you determine that house prices will increase

over the next couple of years and the house will have a much higher resale value. You discover that the appliances of the house are brand new, the roof has recently been replaced, the yard is in great condition, and everything else seems to be in order with the house. You run a few calculations based on the condition of the house and future prospects of the housing market, and ultimately you value the house at $300,000. Because of your inspections and belief on the future condition of the housing market, you have determined that the intrinsic value (true) value is greater than the market value of the house. You should buy the house and consider yourself a value investor.

QUESTIONS TO CONSIDER:

1. Why is determining the "Intrinsic Value" of a house more difficult than the "Book Value"?
2. What is the "Market Value" and the "Book Value" of something harder to calculate, like going to college? What is the "Intrinsic Value" of going to college?

SECTION 2

Determining the Intrinsic Value of a Company

There are many valuation metrics and techniques investors use to try to estimate a company's worth. We will teach you two: The Discounted Cash Flow Method and the Relative Valuation method.

The Discounted Cash Flows method

You want to impress someone you know who works in finance? Tell them that you built a discounted cash flows or "DCF" model in school today! It's like telling a hiker that you've hiked Mount Everest or telling an ice skater that you can do a triple axel. Yeah, doing a DFC is really that cool. And today you're going to create one!

A Discounted Cash Flows model is one of the go-to ways for investors to measure the value of a company. A company's worth is the present value of all net future cash flows, or in simpler terms (I know that's a mouthful), the value of a company today is the sum of all the cash flow they will earn each year in the future, but what that cash flow is worth in today's dollars. A company's value cannot be measured entirely by its total sales, nor buy its net income. We cannot necessarily say that just because a company has more revenue or net income that it is more valuable than its counterpart. A company is only worth the amount of cash it has left over after it has covered all of its expenses. That is what we mean when we say net cash flow. Net cash flow is the cash the company receives from its sales minus total expenses minus money spent on equipment or assets to grow the business (called Capital Expenditures). The formula is: Net Cash Flow = Revenue – Expenses – Capital Expenditures. This type of valuation is referred to as a discounted cash flow analysis.

Question: You are given the opportunity to choose to invest in either company ABC or company XYZ. ABC has total annual revenue of $100.00 and is selling for $250/share; XYZ has total revenue of $80.00 and is selling for $300/share. Which one would you buy?

Answer: It depends. You can't judge whether to buy a company based purely off of its revenue. You would need to know the present value of its future cash flows, and then determine which company to buy.

Alright, are you ready to rock and roll?

Go to "Resources" Tab on the Young Investors Society website (www.younginvestorssociety.org) and download the "Intrinsic Value" Spreadsheet. Here you will find a template that will walk you through creating your very own calculation of the intrinsic value of a company. It may seem daunting at first, but it's really not that complicated. And it's a powerful tool once you know how to use it.

Steps to use the Discounted Cash Flow (DCF) Analysis Tool:

1. Chose a company that you would like to estimate the intrinsic value for (e.g. Apple, Google, Netflix, Ford etc.)
2. Use finance.yahoo.com or zacks.com to input the information in the yellow boxes (name, share price, shares outstanding, revenue, net income, free cash flow).
3. Your two main assumptions are 1) the future growth rates (Row 15 & 16) and the cash flow margin (Row 26). Look at the trends the company has had in the past, think about if the future will be higher or lower, and make your best guess. Remember that most companies have flat or declining margins over time because of competition and technologic changes
4. In most cases, leave the discount rate at 12%. Also, in most cases, leave the terminal growth rate at 4 or 5%.
5. Play around with the assumptions. When you do, look at how the cash flow graph and the Intrinsic Value calculation changes.
6. In Row 33, you will see your Intrinsic Value calculated. If the Intrinsic Value is significantly above the Current Share price, then the stock is likely undervalued, and go BUY IT! If the Intrinsic Value is below the current share price, then the stock is likely overvalued.

Below is a snapshot of how your DCF model will look. Be sure to save your sheet to your own drive for future use. And so when your dad's friend that works in finance says "No way, you didn't really do a DCF in high-school!" You can prove it to him. He'll probably offer you an internship on the spot.

1	**SIMPLE DISCOUNTED CASH FLOW MODEL & RELATIVE VALUATION**											
2												
3	**Company Information:**				*Input in Yellow Cells*							
4	Company Name:		Apple									
5	Company Ticker:		AAPL	=>	Go to finance.yahoo.com and type a company name and the ticker will pull up							
6	Share Price on Valuation Date:		$105.46	=>	Use the Stock Price, that is below the company name							
7	Diluted Shares Outstanding		5,580.0	=>	Click on "Key Statistics" and under the "Share Statistics" Column use the "Shares Outstanding" numbe							
8												
9	**Discounted Cash Flows (DCF) Analysis**											
10					Go to finance.yahoo.com							
11	Most Recent Revenue		233,720.0	=>	On "Key Statistics" page enter "Revenue (ttm)",ttm means trailing-twelve-months, in millions							
12	Most Recent Net Income		53,390.0	=>	On "Key Statistics" page enter "Net Income avl to Common (ttm)', in millions							
13	Most Recent Free Cash Flow		55,860.0	=>	On "Key Statistics" page enter "Levered Free Cash Flow (ttm)", in millions							
14	**Key Assumptions:**	=>	Play Around with different assumptions of growth rates (check out how it changes the Intrinsic Value and the Cash Flow Chart)									
15	Growth rate for next 5 Years		10%	=>	How fast you expect the company's earnings to grow on average each year for the next 5 years							
16	Terminal Growth Rate		4%	=>	How fast you expect the company's earnings to grow after 5 years to perpetuity							
17	Discount Rate		12%	=>	In most cases this is 10-12%, and represents the company's cost of capital. In most cases just leave th							
18												
19			Projected Annual Forecast									
20	**Period**	**Actual**	**Future Yr 1**	**Future Yr 2**	**Future Yr 3**	**Future Yr 4**	**Future Yr 5**	**Future Yr 6**	**Future Yr 7**	=>	**Terminal Value**	
21	Revenue	$233,720.0	$257,092.0	$282,801.2	$311,081.3	$342,189.5	$376,408.4	$391,464.7	$407,123.3		$423,408.3	
22	*Revenue Growth Rate (%)*		*10.0%*	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*4.0%*	*4.0%*		*4.0%*	
23	Net Income	$53,390.0	$58,729.0	$64,601.9	$71,062.1	$78,168.3	$85,985.1	$89,424.5	$93,001.5		$96,721.6	
24	*Net Margin (%)*	22.8%	*22.8%*	*22.8%*	*22.8%*	*22.8%*	*22.8%*	*22.8%*	*22.8%*		*22.8%*	=>
25	Cash Flow	55,860.0	$61,446.0	$67,590.6	$74,349.7	$81,784.6	$89,963.1	$93,561.6	$97,304.1		$101,196.2	
26	*Cash Flow Margin (%)*	23.9%	*23.9%*	*23.9%*	*23.9%*	*23.9%*	*23.9%*	*23.9%*	*23.9%*		*23.9%*	=>
27												
28	Unlevered Cash Flows	$55,860.0	$61,446.0	$67,590.6	$74,349.7	$81,784.6	$89,963.1	$93,561.6	$97,304.1		$1,264,953	=>
29	*Discount Rate*		*12.0%*	*12.0%*	*12.0%*	*12.0%*	*12.0%*	*12.0%*	*12.0%*		*12.0%*	=>
30	Discounted Cash Flows		$54,862.5	$53,882.8	$52,920.6	$51,975.6	$51,047.5	$47,401.2	$44,015.4		$510,893.3	=>
31	**Sum of present value of cash flows**	**$866,999.0**										
32	Shares Outstanding	5,580.0										
33	**Intrinsic Value per Share**	**$ 155.4**	=>	This is your estimate of how much the stock is worth using the Discounted Cash Flows method!								
34	**Currrent Share Price**	105.5										
35	***Upside Potential***	***47.3%***		***Company: Apple***	***Graph of Future Cash Flows***							

QUESTIONS TO CONSIDER:

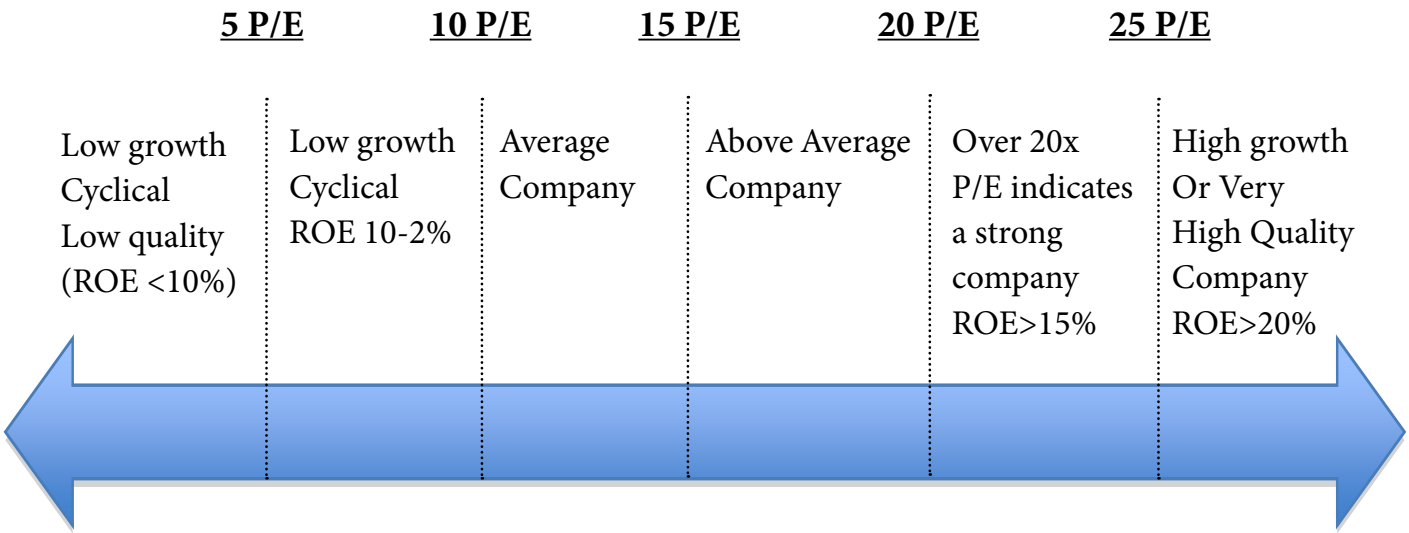
1. The "Intrinsic Value" calculation was most sensitive to changes in which assumption? (5 Yr growth rate, discount rate, terminal growth rate)
2. What did you learn while playing around with the model assumptions about the value of a company?
3. Would you rather buy a very predictable company that had 20% upside potential or high-growth company that has 50% upside potential?

SECTION 3

The Relative Valuation Method

A simpler, better known metric, to estimate a company's valuation is its price-to-earnings (P/E) ratio. For companies with relatively stable earnings prospects, the P/E provides a reasonable approximation of the discounted value of its future earnings, as it tells the investor how many times one year's earnings the stock price is currently discounting. For example, if a stock is trading at a 15x P/E, this means that at the current year's earnings (E) it will take 15 years to get your money back. 30x P/E will take 30 years. Obviously, for an investment, the sooner the better. Thus, the P/E is a reasonable yardstick for a stock's valuation. Everything else being equal, the lower the P/E, the more attractively valued the stock is said to be. However, there are many caveats to this statement. Different industries have different P/E ranges, the more stable the industry (and the company's earnings streams), and the higher the P/E can be without necessarily making the investment "expensive." Very cyclical industries tend to present additional challenges. High growth companies tend to trade at high P/E, and low growth companies tend to trade at low P/Es.

Here is a quick chart to gauge what the "intrinsic" P/E should be:



As you can see, valuing stocks is like going to a grocery store. You get what you pay for. If you want to buy the best product, you're likely going to have to pay for it. Our job as investors is to buy as quality a product as we can (high ROE, strong economic moat business) at as low a P/E as we can.

There are value investors who prefer to focus more on "balance sheet" related ratios, such as the price-to-book (P/B) value of a firm. The P/B compares the stock price to the value of company's assets minus its liabilities.

Are you ready to calculate Intrinsic Value using the "Relative Valuation" method? In practice, this is the method that most professional portfolio managers and analysts use to estimate the value of a company.

Go back to your "Intrinsic Value" Spreadsheet and scroll down to the second section called "Relative Valuation Analysis".

Steps to use the Relative Valuation Analysis Tool:

1. Chose a company that you would like to estimate the intrinsic value for (e.g. Apple, Google, Netflix, Ford etc.)
2. If you filled in the section above in the DCF assumptions, the P/E of the company should already be calculated in C:56 (for example, 11.0).
3. You then want to think of three or four good comparable companies that operate in similar industries and have similar ROEs and growth expectations. If you are buying a house, this is like going to similar homes in the neighborhood and seeing what they sold for.
4. Look at the comparable average P/E (C:61). Is the average above or below your company? Go to Row 63, Column C and decide whether your company deserves to trade at a premium or discount to their peer average. For example, do they earn a premium ROE? Are they growing faster? Are they a more predictable business? If so, then they may warrant a premium.
5. C:64 is where you put in your **Target Multiple**. Use the chart above, and the comparable company table in your model to estimate a P/E ratio. Is it 15 (average), 10 (below average) or 20 (above average) company? What P/E ratio range did it trade at in the past?
6. In F:70, you will see the earnings per share estimated 3 years in the future. Review this number, and decide whether you think this is a good assumption.

7. In Row 72, you will see your Intrinsic Value calculated. If the Intrinsic Value is significantly above the Current Share price, then the stock is likely undervalued, and go BUY IT! If the Intrinsic Value is below the current share price, then the stock is likely overvalued.

52												
53	Relative Valuation Analysis											
54												
55	Comparable Companies	P/E Ratio	=>	P/E Ratio is the most common metric to for relative valuation. P/E ratios on average vary between 5 to 30.								
56	Apple	11.0	=>	P/E Ratio is the Share Price / (Net Income divided by # of Shares Outstanding)								
57	Google	32.2	=>	On Yahoo Finance, "Competitors" tab pulls up other companies in the industry.								
58	Samsung Electronics	9.1	=>	Knowing that Samsung is the major smartphone competitor, add them as well								
59	HP	4.8		Companies with low earnings visibility tend to trade at low P/E								
60	Microsoft	37.0	=>	Companies with high earnings growth tend to trade at high P/E								
61	Comparable Average	18.8	=>	The average of the industry								
62		1	2	3		4	5	6	7	30	8	
63	Deserved Premium / Discount to Avg	0%	=>	Does your company deserve to trade at a discount or premium to their peers? Do they have higher / lower margins?								
64	Target P/E Multiple	18.8	=>	Your estimate of what you feel the company is "worth" on a P/E basis. A bad company may get only 5, average 15, ar								
65												
66			Projected Annual Forecast									
67	Period	Actual	Future Yr 1	Future Yr 2	Future Yr 3	Future Yr 4	Future Yr 5					
68	Revenue	$233,720.0	$257,092.0	$282,801.2	$311,081.3	$342,189.5	$376,408.4					
69	Net Income	$53,390.0	$58,729.0	$64,601.9	$71,062.1	$78,168.3	$85,985.1					
70	Earnings per Share (EPS)	$9.57	$10.52	$11.58	$12.74	$14.01	$15.41	=>	Use earnings per share 3 Yrs in the future			
72	Intrinsic Value per Share	239.7	=>	This is your estimate of how much the stock is worth using the relative valuation method!								
73	Currrent Share Price	105.5										
74	*Upside Potential*	*127.3%*										
75												

There, now you've done it!

Compare your DCF Intrinsic Value Calculation to the Relative Valuation Calculation. Did they reach the same conclusion?

Student Teacher:

Choose one student to explain the concept of "intrinsic value" to the group. Have the student briefly describe the three ways discussed above, and then choose a company that has a low P/E ratio. Why is the P/E ratio a commonly used way to value a company?

QUESTIONS TO CONSIDER:

1. Referencing your Intrinsic Value calculation, why is it risky to buy a stock that trades at a high P/E ratio?
2. Why is it risky to buy a company that trades at a low P/E ratio?

CONCLUSION

Intrinsic value is the true value of a company. This may or may not be reflected in its stock price. A great investor is one that can find a stock that is trading at a significant discount to its intrinsic value. Many valuation techniques exist due to different preferences among investors.

Two Primary Valuation Options

- Discounted Cash Flow Model
- Relative Valuation Model

When measuring intrinsic value, we have to take into account a lot of random variables; therefore, the intrinsic value is often an estimate. Valuation is not 100 percent precise, but if you are good at it and can continuously find companies that are trading at a discount to their future value, you will be in great shape. Intrinsic value is a necessary lens through which we need to see our investments.

KEY TAKEAWAYS:

1. Intrinsic value is what something is worth, Price is what you have to pay. They're not the same thing!
2. Buying stocks below their intrinsic value gives you a margin of safety and sets you up to make money in the market.
3. The two most common methods for calculating value of stocks are the Discounted Cash Flow Model and the Relative Valuation Model.

GLOSSARY OF TERMS

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

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

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

4). **Asset** – a resource that the company owns or controls

5). **Book Value**- The sum of all liabilities and equity on the balance sheet

6). **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

7). **Brokerage Firm** – A financial institution that facilitates the buying and selling of financial securities (generally stocks or bonds) between buyer and seller.

8). **Brand** – A distinguishing symbol, mark, logo, name, word, sentence or a combination of these items that companies use to distinguish their product from others in the market. Brand equity is the positive sentiment created by a product among its target audience over time.

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

12). **Cash Flow** – Cash flow or flows is the cash generated by a company. It is different from earnings because does not include non-cash items. For example, a company may make a large sale to a customer, which will count as earnings, but the customer has 30 days to pay for the purchase, so it is not yet cash received by the company.

13). **Creditors** – Investors or institutions (such as banks, among others) to which a company owes money.

14). **Capital** – Another word for money.

15). **Common Stock** – the stock sold to investors on the market

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

17). **Dividend** – The portion of a company's profits that it pays out each year to shareholders in the form of cash.

18). **Discount Price**- A price that is lower than the true value

19). **Discounted Cash Flow (DCF) Analysis**- Forecasting future cash flows that the business will generate and then discounting them back to the present value at an appropriate discount rate.

20). **Discount rate**- Rate of return that investors need to receive in order to be compensated for risk

21). **Diversification** – A risk management technique that mixes a wide variety of investments within the portfolio. The rationale behind this technique contends that a portfolio of different investments will, on average, yield higher returns and pose lower risk than any individual investment found within the portfolio.

22). **Equity Value**- Intrinsic value of equity that is found by subtracting total debt from firm value

23). **Enterprise or Firm Value** – The total value of the company, including the portion of it that "belongs" to its creditors. It is calculated by adding the company's net debt to its market cap.

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

25). **Economic Moat** – The competitive advantage that one company has over other companies in the same industry. This term was coined by renowned investor Warren Buffett.

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28). **Equity Portfolio or Stock Portfolio** – A basket or collection of stocks. A diversified stock portfolio includes companies from different industries and of different sizes.

29). **Firm/Enterprise Value**- Intrinsic value of a company taking into account both debt and equity

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

31). **Gross Margin** – The profit the company makes after the cost of its goods are paid for. (Gross Profit / Total Revenues)

32). **Intrinsic Value**- the true value of a company without regards to its market value or book value

33). **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

34). **Intrinsic Value** – The true worth of a company. There are many ways to estimate the intrinsic value of a company, among them are discounted cash flow analysis and relative valuation analysis.

35). **Intrinsic Value** – What a stock is truly worth, not necessarily what the current stock price is.

36). **Inventories** – products that will eventually be sold to a customer

37). **Interest Coverage** – The total value of the company, including the portion of it that "belongs" to its creditors. It is calculated by adding the company's net debt to its market cap.

38). **Investment Thesis** – The basic guiding principles an investor establishes to justify:

1. Why he owns the company
2. What he expects to happen
3. What he sees that the market does not give the company credit for

39). **Liability** – any obligation that the company owes to another entity

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

41). **Liquidity** – The degree to which an asset or security (stock) can be bought or sold in the market without affecting the asset's price or stock price. Assets that can be easily bought or sold are known as liquid assets.

42). **Low Cost Advantage** – A sustainable advantage driven by access to a unique process, location, scale, labor costs or access to a unique asset, which allows a company to offer goods or services at a lower cost than competitors.

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45). **Margin of Safety** – Only purchase stocks when the market price is significantly below the intrinsic value. For example, a company owns land, equipment, cash and other assets that are worth $20 per share, yet the stock price is trading at $15 per share in the market. Buying this company at $15 provides a 25% discount or margin of safety.

46). **Mutual Fund** – Professionally managed stock portfolio. Instead of investing in individual stocks yourself, you can invest money in a mutual fund, where professionals pick stocks for you.

47). **Market Value**- the sum of the market cap (shares outstanding times total shares) and the debt

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

49). **Margins** – The percentage of profit the company makes for every dollar of revenues. For example, a 50% profit margin means the company earns $0.5 of profit for every $1 of revenue earned.

50). **Market Capitalization** (also known as market cap) – Total market value of the company's equity. It is calculated by multiplying the stock price of the company times the number of shares outstanding.

51). **Network Effect** – A phenomenon whereby a good or service becomes more valuable when more people use it.

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54). **Net Debt** – The company's total debt adjusted by its cash on hand (total debt minus cash).

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

56). **Operating Income** – the income after subtracting both cost of goods sold and operating expenses from total revenuesOperating Margin – calculated by dividing operating income by total revenues

57). **Operating Margin** (EBIT Margin) – The profit the company makes after paying for its cost of goods sold and the cost of salaries, utilities, and depreciation. (Operating Profit / Total Revenues)

58). **Profit Margins** – The ratio of profits made per dollar of revenue. The higher the profit margin the better.

59). **Portfolio Manager** – The manager of a portfolio of stocks. They do extensive research to make investment decisions for a fund or group of funds under their control. Based on their research, the Portfolio Manager will buy and sell stocks.

60). **P/E Ratio** – One measure of how expensive a stock is. In general, a high P/E suggests that investors are expecting higher earnings growth to be high in the future. A low P/E can indicate either that a company may currently be undervalued or that the company's profits are expected to decline.

The price-earnings ratio can be calculated as:
Market Value per Share (Stock Price) / Earnings per Share
or
Market Capitalization / Profits

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

62). **Price to Book** – A ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share.

63). **Profits** – Profit is the money a business makes after accounting for all the expenses. Regardless of whether the business is a couple of kids running a lemonade stand or a publicly traded multinational company, consistently earning profit is every company's goal.

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

66). **Revenue** – The amount of money that a company actually receives during a specific period. It is referred to as the "top line" because it is the total amount of sales before you start to factor in the costs of the business.

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

68). **Return on Invested Capital** – A calculation used to assess a company's efficiency at allocating capital under its control to profitable investments.

69). **Return on Capital** – Return on Capital is a useful metric for comparing profitability across companies based on the amount of capital they use.

70). **Return on Equity (ROE)** – Perhaps the most useful financial metric or all, it is used to compare a company's profits based on the total capital.

Return on Equity = Net Income / Shareholder's Equity

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73). **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

74). **Stock** – Stock is a unit of ownership in a company. When you buy a stock you become a shareholder, which means you own part of the company.

75). **Switching Costs** – The inconveniences that dissuade a customer from switching to a competitor's products. The negative costs that a consumer incurs as a result of changing suppliers, brands or products. Although most prevalent switching costs are monetary in nature, there are also psychological, effort- and time-based switching costs.

76). **Stock Market** – The market in which shares of publicly-held companies are issued and traded, either through exchanges or over-the-counter markets. Also known as the equity market, it provides companies with access to capital (money) in exchange for giving investors a slice of ownership in a company.

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78). **Shareholder** – Any person, company, or other institution that owns at least one share of a company's stock. Shareholders are a company's owners.

79). **Stock Ticker or Symbol** – An identifier (usually from 1 to 4 letters for US companies) for a stock. This symbol is the name under which a company's stock trades in the stock market.

80). **Shareholders** – Owners of company stock.

81). **SWOT Analysis** – A comprehensive analysis of a company's Strengths, Weaknesses, Opportunities and Threats.

82). **Shorting a stock** – Borrowing against the shares of stock, you profit when the stock price goes down.

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84). **Ticker** – The abbreviation that a company is listed on the stock exchange. For example, Google has the ticker GOOG and Apple has the ticker AAPL.

85). **Valuations** – A way to gauge how expensive a stock is. Commonly used methods are the price of the share relative to earnings per share (P/E Ratio) and the price per share relative to the book value per share (P/Book ratio). The higher the valuations, the more growth you need to justify the investment.