Investing: Psychology Vs. Methodology

Dedicated to:

My mother Mrs. Sushila Walia, my wife Mia and my children, Tasha, Justin, Carrun, Codi, Tilar and Gabby

Contents

Introduction

Most professionals will tell you that there is a methodology to investing. Phrases like “Don’t put all your eggs in one basket…”, “diversification is the key…”, seem to be the prevailing mantra within this group.

No matter what anyone says, investing is not an exact science, it’s an art and therefore there is an intrigue to the investing process. The prime endeavor is to find the Holy Grail that no one seems to have found so far. Every year, every decade newer and more complicated product are added for investors to trade. Trading platforms, technology and myriad forms of research seems to be getting better at an increasing rate, bringing up to the minute data to our fingertips in addition to the abundance of products and investing education.

As I explore the philosophy of investing, I keep coming back to the realities of the market place that I do not want to confront, just as majority of investors in the past and present. The search by new entrants and old players continues as the market evolves. Each and every investor is constantly attempting either on his own or through the help of an advisor the endeavor to beat the broader markets. It almost seems like we as investors have entered a realm of this investing game where winning becomes the major endeavor. What better way to keep score than to compare their portfolio returns with major broad-based indexes; boost our egos while we try to get wealthy.

As the mystique and the intrigue to beat the markets stay strong, we have experienced an evolution in the investing methodology which comprises of mathematical and statistical models, the advent of machines with sophisticated algorithms and even the use of Artificial Intelligence. It therefore becomes important and somewhat given for the average financial professional to be equipped and up to date with the latest and greatest information in terms of hardware and software.

In the process of positioning themselves as professionals in the cutting edge, most professionals equip themselves with the latest jargon and technology in the industry. Somewhere in the gamut of professional verbiage are thrown terms and variables like beta and standard deviation; which is the measure of the volatility of the portfolio and its movement in relation to the market movement respectively. Sometimes, I wonder if Mr. Warren Buffet, one of the most successful investors of the 20th century considers or pays attention to standard deviation and covariance of the investments he makes. George Soros one of the legendary hedge fund managers/philanthropists probably didn't focus on the standard deviation of the sterling the day before he made a billion dollars by shorting the pound.

The inherent conflict of interest on Wall Street has compelled it to consistently innovate with new products so that the rest of us can keep extending out money to fill their pockets. I happen to be an Investment Advisor and have come across a number of investors who have made a fortune in the market. They all had one characteristic in common; they all invested in equity in the shape of stocks or personal businesses and held those positions for a considerable period of time.

I am not convinced that all that was a deliberate action on the part of all those investors and as Nicholas Taleb would say "we get fooled by randomness". One of the most generic clichés in the world of investing is long term investing. What does that really mean? Yes, technically, if an investor holds an investment for over

12 months then the tax rate on the gains is lowered and hence the term "long term".
My interpretation of long-term investing is based on the following thought process. It is a fact that Wall Street follows Main Street. In other words, the value added in tangible products or intangible securities is ultimately translated to improved quality of life for the masses, at least materially if not morally. But I digress.

Value addition to products and services allows consistent flow of currency into the hands of investors in the form of disposable income. This disposable income finds its way into the capital market and gets invested in the securities of the investor's choice. Let me explain: for illustration, let's use the example of a company known as Intel. As Intel takes the raw material known as silicon and adds value by converting it into an electronic chip which can then be used to power the computing ability of a machine known as a computer, the voice and data transporting ability of a cellular phone and enhances the performance of many other instruments, it does one thing and that is to improve the quality of life of the masses; or does it. Most people will say that it does.

Due to our belief in the capitalistic paradigm, a company like Intel provides a compelling reason for corporations and individuals to buy the end products to increase efficiencies in the corporate environment and bring comfort to individuals from its use. A case in point is the ability of this machine to save, manipulate and enhance the content I am typing away.

As various companies with these respective products and services generate profits, there is demand for the paper these companies' issues in the form of its stocks (a share in the company) certificates. The reason to issue stock is to raise capital which could be used for umpteen reasons like, expansion, paying down debt, acquisition of intellectual property or other companies for synergy.

Based on the paradigm explained above there would be value added to the stock certificate (now a day's nobody keeps a stock certificate, but the value is carried by brokers on their books known as book entry) as long as the company continues to increase its profits. Now we all know that the prices of a company's stock fluctuate. Why do you think that is?

In my view, there are different schools of thought that help infer the value of a security. It could start at a dorm room at a university and the valuation model trickle down to the research department of a major brokerage organization. Alternatively, Wall Street companies may have a need to improve their top and bottom line and hence invent products compelling investors to invest in creative products. This in my view is mostly done with good intentions, but human behavior has a weird way of bringing valuations to its mean. In Wall Street jargon, its known as mean reversion. I believe that all companies have a fair value associated to them. This could be a function of various variables like raw material used, labor cost, research and development cost and an element of a reasonable profit. Fundamental variables used to evaluate a company's value is straight forward. It is the investor behavior that determines the fluctuation of the stock price around this reasonable valuation.

The point of contention is that humans using quantitative and qualitative models supported by instruments of immense computing power, are constantly attempting to determine a fair value of respective securities. The difference in the thought process of different market participants based on the culmination of different market models and investor psychology creates inefficiencies in the markets. This causes investors to view securities on a bullish or bearish fashion, hence creating dynamic movements in security prices on a constant basis. <u>If the market</u>

arena was a static environment, we could rely on these valuation models and hence eliminate the fluctuations in these respective securities.

Ironically, these models crunch out valuations based on static variables in the dynamic world of capital markets which is constantly evolving. Add human emotions in the mix and you have standard deviation and variance in the asset prices. This does prove one thing; even though the value of a company's stock is determined by a combination of fundamental variables like profitability, growth, management efficiency etc., at the end of the day, it's the aggregate investor sentiment that can move the stock price significantly away from its fair value.

A wise man once said, "Investors are not machines guided by silicon chips; they are impressionable and imitative. They run in flocks and retreat in hordes". Therefore, it's is important to recognize that market trends are comprised of human emotions and hence psychology plays an important part in investing.

If one has an option to act, there is a high probability that there will be action. Human beings are wired to take action, which provides a false sense of security that we are moving forward. It is in our nature to believe that if we keep taking action then psychologically, we are moving forward. This phenomenon is applicable in the capital markets as well.

Let me illustrate with an example; most schools of thought view Real Estate and capital markets as uncorrelated asset categories. The major difference between these two asset classes besides one being tangible and the other being intangible is that stocks and bonds can be bought and sold with a quick phone call or a click of a mouse. One cannot (at least so far) buy and sell a property in a span of seconds. This phenomenon is an interesting reason for focusing on one's psychology of investing.

Stocks and bonds cater to instant gratification whereas real estate invites ones longer term investment capabilities. Another very important factor to consider is leverage. If you asked an equity investor to use 19-20 times leverage or margin, they will write you off as crazy. But would they react the same way if they were investing in real estate with 90-95% loan value or 18-19 times leverage.

Why is the same investor so comfortable with the leverage in one instance and not the other? The major

difference is that stocks and bonds are market to market. In other words, an investor’s portfolio shows varying value on a daily basis as the market moves in either direction. This phenomenon is important as an investor will be asked to bring in assets (cash) if the portfolio falls below a certain level.
On the other hand, real estate is not marked to market, instead the owner of the property is bound by a monthly payment that they can afford and are comfortable with as long as they are employed and have a steady cash flow to fulfill that obligation.

The phenomenon of leverage has worked very well in bull markets. Needless to say, it has also wreaked havoc on the investing world and completely wiped investors (even in real estate) during recessions. Investors have faced umpteen bubbles and bursts in the past and will continue to face them in the future as long as humans possess the instinct of fear and greed.

This book revolves around the importance of the aggregate human psychology and its impact on capital markets. In addition, I will also elaborate on my belief on mean reversion on human behavior and its self-correcting nature.

1

Conviction

Conviction: The state of being convinced of error or compelled to admit the truth. A strong persuasion or belief.

"A man's conviction defines who he is". Further, it's the level of conviction in times of despair that defines his character. For instance, any entrepreneur can tell you that their business is like their child. It will love you, play with you, frustrate you, embarrass you at times, but at the end of the day, it's still your child. No matter what our children throw at us we are committed to consistently nurture them so that they grow to be decent human beings. Our portfolios should be viewed in a similar manner. Speculation on the other hand has a very short-term horizon and hence naturally embedded with a higher error rate.

Speculation: An assumption of unusual business risk in hopes of gaining commensurate gains.

How do we measure speculation? Would an investor be investing in a speculative company if it was smaller than a specific size, or if its price movement was more volatile in comparison to the movement of a broad-based index? Is speculation investing in a company or a security without performing a reasonable amount of research or due diligence? Or is it speculative to hold an investment for short period of time relative to the time horizon defined by conventional wisdom, and if so, what is a reasonable time horizon. Now the question becomes, what is categorized as a reasonable amount of research time.

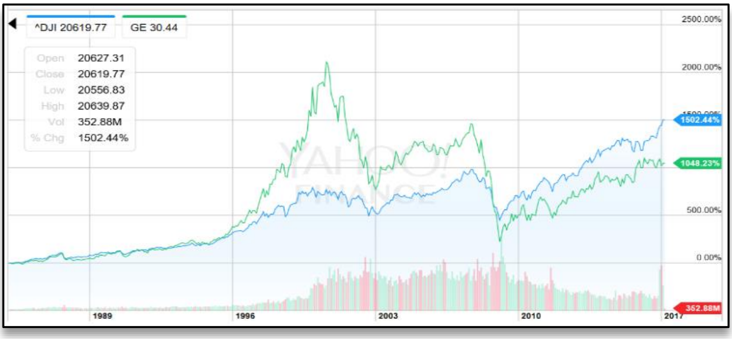
Many investors will categorize profit taking on a shorter term (technically, short term is less than 12 months) also a speculative move. On the other hand, what would you call an attitude to hold on to a losing investment for years? It is obviously an assumption within the investment community that long-term investment is prudent. But as Lord John Maynard Keynes once said, “In the long term we are all dead”.

So, if we assume that long-term investing is prudent, we can then just invest in a security of choice and forgot about it; as everything must move up in the long-term.

Mr. Warren Buffet mentions that investors should invest in a security with a belief and endurance to be able to hold on to a position, presuming that the exchanges that that particular investment trades on can be closed for the next 5 years. In theory that is a great concept, but do the dynamics truly work within the parameters of human emotion and especially in today's technologically advanced trading choices, which allow an investor to buy or sell securities with an ease of a click.

Reality is that an economically feasible trade which works in the favor of an investor will generally not be classified as a speculative one. On the contrary, an investment that goes bad relatively soon after being executed could very well be classified as a stupid move on the investor's part or too speculative.

As investors we all know that the average annual return of a broad-based index like the S&P 500, have been in the range of 9-10% over the last 5 decades.



With factual knowledge of average returns, any extraordinary run up in a security is viewed with skepticism and immediately classified as a speculative security. On the other hand, the biggest and the oldest company in the Dow Jones Industrial (you guessed it: General Electric, GE) has not performed since the dot.com bust in 2000 (See chart below: end of 2007)[1].

The Dow has gained 36% since mid-2003 as compared to a flat performance for GE. Even though GE has paid a 3.5-4% dividend as compared to 1.7-2% yield for the Dow, wouldn't holding on to a great conglomerate like GE in retrospect be short of speculation.

Different investors are partial to different classes of assets. One of most common investment's investors believe and vouch for is real estate. Year after year, investors from different countries have told me at one point or another that investing in real estate is a fool proof method of making money. It was all well and good till the housing bubble busted in the US in 2008-2009 and almost brought the US economy to its knees.

Not only did the declining values of residential properties jeopardized the domestic economy, but it

[1] Source: www.yahoofinance.com

also debilitated the global financial infrastructure and threatened to bring the world economy to its knees. Umpteen times in the history of investing, when the markets experience a bubble, market pundits qualify it with a statement, “It’s different this time…”. Unfortunately, bubbles are meant to be burst, and they are the cause of human greed followed by fear (more in Chapter 8).

The concept of speculation is a state of mind. I can state many examples that we would never consider as speculation, but they are. For starters: marriage. I haven’t met a couple who married thinking that they will be headed for a divorce over foreseeable future. Yet the divorce rate in the US is over 50%. In other words, half the investments in marriage do not work out in the long term. That’s major speculation with one’s life in my book.

Speculation, as I mentioned is a state of mind. The investing arena needs a combination of speculation and conviction. Speculation is an investor’s attempt to accumulate assets from other participants in the same arena and conviction is the need to be involved in the Money game. Even though I talked about the 2007-08 housing crisis in the US, we as investors are less likely to sell our residence or own an investment property under duress. This is not due to the enormous discipline or the sophistication all property owners have, but due to the relative, and I repeat relative lack of liquidity in the real estate markets.

I would imagine that the rate of transactions even with hard assets like a house would be higher if an investor could use a few clicks on their computer screen and sell or buy property as they can do with stocks and bonds. A high rate of transactions can be observed in the commodities market, even though the real commodities are not transacted for each commodities transaction.

Most investors who take positions through commodity futures and options do not plan to take possession of or deliver the underlying commodity to the counter party of the trade. Yet this type of speculation helps commodities markets and corporations, due to the end user's knowledge and estimation of the future prices.

A major point I am attempting to make is that a smart investor (will perform, will find enough reasons to research or use research tools) will bring reasonable conviction to his / her investment philosophy. In other words, very seldom does an investment immediately bring economic fruition, but as long as the variables used to make the decision to invest in that particular security hasn't changed considerably, one should continue to have conviction in that particular idea.

On the other hand, if the variables considered during the initial investment decision have changed or deteriorated, then the investor is better off exiting the investment idea, whether it has been held for a conventionally long or short period of time.

Most of us wouldn't have the discipline to sell a position as it gives us a notice of failure. Maybe we revert back to the constant of long-term investing and compel ourselves to believe that if we hold on to an investment long enough its price will move back to our original cost. If after holding on to a failing investment for an excruciating period, it comes back to the original price, most investors will not have the patience to hold it further so that it reaches profitability, and fear of the past repeating will compel them to sell it at or below breakeven. The lack of conviction and dominance of fear is a major hindrance in the path of a sound investment process.

John Maynard Keynes once said, "One bet soundly considered is preferable to many poorly understood". Most successful institutional investors research an investment thoroughly, whatever their methodology may be. Once the decision is made to invest in that particular security, the institution or the money manager then starts to build positions in that company. This is done gradually so that they could dollar cost average and are not captive to a single time frame or price.

Similarly, individual investor who may not have the resources or the expertise of established institutions, could at least institute a discipline and invest not only in soundly considered investments, but also have the conviction to add to those positions, especially when things may seem to be going against them. In other words, having conviction in the concept that has been studied by us in detail is more important than the price movement of the security. The endeavor and hope is that the price of an investment whose fundamentals improve should also gain value. The increase in value of a security is a function of two main aspects; one the overall market conditions and secondly, the condition of the security.

Conviction is a very crucial variable that determines the success of an investor. Unfortunately, one must recognize that conviction in a concept or a bet, could by default leave one gravitating away from the majority of investor's consensus. But then again if an investor is committed to an investment and the fundamentals change for the positive, then the wave of new investment could easily elevate security prices and bring handsome returns for investors who stuck around with conviction in their idea(s).

It's easy to commit to a concept or an investment idea when that idea is turning out to be economically fruitful, but the real test is when the idea is going against the investor. In other words, an investor is compelled to infer that either his judgment is flawed, or she lacks critical knowledge that others possess as continued selling takes place. Practically speaking, if everyone could possess adequate conviction in their concepts and ideas, we wouldn't have opportunities that would be created by lack of conviction or the instinct to protect oneself before other investors head for the exit. Investors would stick with their ideas and view them as businesses; watch them grow as their own children and stay patient through ups and downs.

All investments cannot be viewed the same. Consider real estate for example. The major difference between real estate and the stock of a company is that one is liquid, and the other is not. As an investor's whim shakes his conviction, he can sell a stock with a click on his computer or mobile phone. Despite the augment of technology, this is not the case with real estate. By default, most investors are compelled to hold on to their real estate and avoid impulsive sales which could result in erroneous decisions.

Even though the developments in technology has improved the efficiency and economy of investing, it has brought a negative aspect with it. The total number of shares traded on various exchanges have grown exponentially over the last few decades. Anyone with a computer or a cell phone can access their accounts at umpteen stock brokers and trade stocks with utmost ease and next to nothing commission rates. I believe that participants in the markets suffer from overconfidence and a tendency to overestimate their market prowess. Equipped with the computer mouse, we tend to overtrade with the belief that we can beat the markets. In other words, we attempt to be opportunistic in negotiating the maze of the markets without realizing that we are doing more harm to our portfolios than good.

The markets are constantly providing us a dichotomy of information; true signals, that change the investment fundamentals and the noise, created by media, which includes Cable TV, the Internet and more recently, information on mobile devices. Information is available abundantly and cheaply. It becomes very difficult to decipher between the real fundamental information which is useful to make decisions as opposed to the noise that we are bombarded with, which exposes us to making crucial mistakes in our investment choices.

I am not a proponent of holding on to an investment forever. If we believe that market sentiment is comprised of the participant's aggregate behavior, (who are humans and are subject to human errors like impulses, emotions and irrational reactions) then irrational herd mentality can move markets to irrational levels.

Obviously, markets are never wrong, but it can be empirically observed that every time a security price moves beyond a reasonable price range, it subsequently tends to gravitate towards its reasonable mean. Again, this may take years, sometimes decades, but the prices do revert to a reasonable mean. ***<u>It is in the nature of humans</u>***.

In addition to being a victim of the abundance of useless information, we are bombarded with, humans are naturally inclined to being conformists. We feel very comfortable being a part of a herd, blending in as conformists (More on this in in Chapter 4: Contrarian vs. Conformist).

Therefore, when an investment starts to go against us, we look for a crutch, something to find solace in. This solace is found in doing what the rest of the investing herd is doing. We feel secure in surrendering to the herd's movement; in this case selling out of our investments when everyone around us is selling this particular security. It feels very lonely to stay in a losing investment. We start believing that the market knows something that we don't. In addition, memories of past investments that didn't turn out positively remind us of our fallibility, and we slowly but surely start to succumb to our own emotions. Majority of the times, we end up selling our loosing investment right before it starts its assent back, which further frustrates us and make us believe less in our investing abilities.

Most investment professionals and even retail investors have the basic ability to learn about mathematical models that help us evaluate a reasonable value of a particular security. What business schools don't teach is the practicality of the markets and how to negotiate them when we feel less sure in the same models that nudged us to make that particular investment.

In fact, we've just upgraded the stock from a conviction hold to a table-pounding neutral!

Therefore, it is very important to have conviction in one's thought process and analysis. Changes to the investment ideas and opportunities should be made carefully only if the fundamentals of an investment change and not just the noise from frivolous sources.

2

The Ticker Tape Syndrome

Most humans are obsessed with the concept of winning. The current state of affairs compels us to keep score and define the hierarchy of socio-economic state one exists in. An evidence of this is the obsession with sporting events, all the way from high school to professional sports. This concept of winning or losing provides us with an identity. The locker room syndrome is experienced everywhere in our lives; from kindergarten to our jobs, from our personal to our professional lives.

There are various games we play in different arenas. These are played at social or economic levels. Examples of social paradigm could be; “my honors child…”, “my gorgeous wife…”, “I have written a book…” (Of course, not this book), “I am the President of our association…” Whatever allows us to relatively measure ourselves as an individual and places us at a higher socio-economic level. It is a response to society and how it identifies us.

On the economic level, some examples are the cars we drive or the size of our home or the area we live in, our physical possessions and the glitter of our economic success. Now anytime we have an opportunity to exhibit a glaring material or social edge, we will avail of it and attempt to measure ourselves in the group or company we are in.

In my view, society has instilled in us that our self-worth is defined by our socio-economic status and not by the person we are. In this day and age, we act more like dumb driven cattle as opposed to free thinkers.

In a similar way, it’s very natural for a professional or an individual investor to measure how they are doing in the markets by developing a performance report card. What could be better than calculating one’s performance by watching the ticker tape and measuring one’s batting average by the movement of stock prices in red or green? This is despite the study that shows investors who watch the ticker more often, experience a higher level of anxiety.

The housing bubble of 2008-2009 has been an eye opener for the generation of investors who believed that real estate was a sure thing. Not So. This bubble not only sent a clear message that any excess can stay at extreme levels for long but has also taught individual and institutional investors that use of leverage can also be terminally disastrous during times of declining asset values.

Assets started to gravitate towards real estate during the declining interest rate period of 2000-2002. The kick added to the high-octane fuel of low interest rates was the interest from financial institutions from all aspects of the industry with a desire to invest in this momentum which had investors smitten by the rich quick real estate schemes.

Financial companies big and small, domestic and international, banks, brokerages and especially hedge funds were dedicated to the US real estate investment boom. At the height of the housing bubble, homes were being sold within hours of being put on the market, with multiple offers trying to outbid each other. Areas like Miami, Las Vegas, San Diego, Phoenix and Boston experienced a major construction boom. Sub divisions and condo communities were sold out even before the foundation of these respective sites were laid. This was reminiscent of the madness of the dot.com bubble years, when all a company’s IPO needed was a dot in its name and it was oversubscribed umpteen times. But as all good things come to an end, this real estate boom did as well.

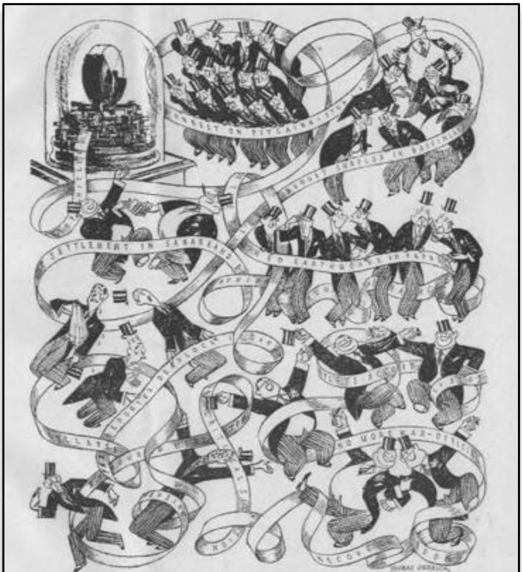
The creative nature of interest only, adjustable rate and other negative amortization loans facilitated umpteen numbers of buyers into new homes. In addition, the zero down and low rates attracted tones of people to become investors and undertake loans for investment purposes. As the interest only loans and adjustable loan terms (3-5 years fixed loans turn to adjustable) started to come due and adjust upwards, monthly payments started to be recalibrated and mortgage holders realized that they no longer could afford to make the payments.

As home owners and speculative investors fell behind in their monthly payments, the housing sector started to deteriorate. Within a year (around 2007 end) the residential inventory, which on an average is 2-3 months' worth of homes on the market, rose to 8-9 months' worth of supply. The ramification of housing deterioration had a major impact on financial institutions. These institutions and hedge funds that are expected to mark their investments to market prices, started to take huge write offs as the values of their real estate portfolios started to disintegrate.

This phenomenon actually catalyzed a run on some the major banks and went to the extent of threatening the collapse of the US financial infrastructure during 2008. The major difference in the dot com and the housing bubble was that during the dot com bust investors could watch the value of their prized technology stocks plummet and had a choice to sell those stocks with just a click of the mouse on their computers. Unlike real estate the buy and sell process in stocks is one of a few seconds. No questions asked, no paperwork required no stated income, no nothing, just a quick decision and there's no looking back.

Imagine what would have happened if the same process was applied to home purchases and sales. Homes could be bought with a click of a mouse and the property would have to be delivered in T+3 (Trade date plus three days for transaction settlement) days just like equities. Financial institutions helping process those transactions would allow the investor to keep the house in book entry form. Also, the home owner would watch his house value fluctuate every day on his or her computer screen at work, on TV or after work while browsing the internet. Also, investors would watch news flashes that would impact their housing values all day long.

Quarterly reviews at work would flash as a measure of the financial strength of the family. The total insurance and the kind of coverage, the health of a family and the crime rate in the neighborhood would all impact the value of the house minute by minute, second by second. It’s important to note that the value of the house is the biggest asset in most household’s net worth. It cannot be and should not be valued on a daily, monthly or even a yearly basis.


SENTIMENT ON THE STOCK EXCHANGE

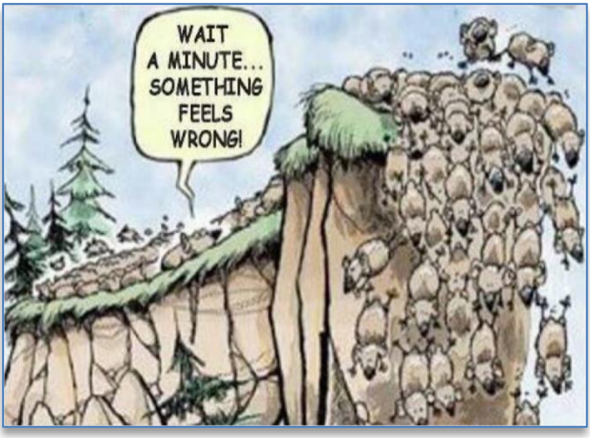
Watching the ticker on a minute by minute, daily or even weekly basis is a recipe to efface whatever little patience and conviction we as investors have in our investment ideas. The immediate movement of stock prices can have a debilitating impact on the buy and hold investor. As investors watch the ticker, the natural instinct is to expect prices to go in one's favor; up if long, down if short.

It is a fact the nothing goes up or down in a straight line. If a regular investor watches the market every week or every month the impact on the investor sentiment may be less than someone watching the ticker tape daily. Therefore, happiness and disappointment are constantly being stimulated in an investor's mind while watching the ticker. It is a deterrent and catalysis the element of deviation for investors from the disciplined path in regard to specific investment opportunities or concepts.

One cannot convincingly say that we as investors do not watch our investments closely. The trick is to watch our portfolio at an adequate frequency to gauge the progress and block out the volatility in the portfolio created by the noise in the markets. But more importantly, investors should learn to believe that price patterns have, and always will be erratic in the short term.

Obviously, the day today price of any security can fluctuate widely with the noise in the markets. By noise, I mean the element of human sentiment in the form of trading from retail and or institutional investors. Now a days, we have an added element of machines that use complicated algorithms to make millions of trades per day.

This phenomenon is almost two decades old but has realistically gained momentum over the last decade. A good representation of this has been published by Michael Lewis in his book, "The Flash Boys".



Unless the fundamental story of the investment changes, one should only consider the ticker tape as a spastic kid throwing a hissy fit. In this case it is better to let the kid finish throwing the hissy fit and then decide whether to spank him or put him in time out.

I am not preaching the conventional wisdom of buy and hold but emphasizing the importance of blocking out the noise created by shallow and fickle minded media and the green and red signs dancing on the monitor.

The most important aspect of investing is maintaining a stable mind. Watching the ticker constantly impacts the psychology of an investor. The constant push and pull created by the media is a deterrent in maintaining a stable mind set and conviction in terms of an investment idea or disciplined portfolio management approach. Instead of using the ticker as a gauge of success, one should attempt to use it as a snapshot of aggregate investor sentiment being projected on respective markets, sectors or securities.

In addition, that sentiment projection can and will change constantly in the short term, due to random variables that tend to create unwanted noise.

We have all heard about the conflict of interest on Wall Street. I would like to evoke a similar concept in regard to the modus operandi of major media. It is in the interest of media to provide the most attention-grabbing commentary so that they can keep viewers glued to the tube. For instance, one of the most popular Wall Street news channels, CNBC brings out bears on the days markets experience a huge down draft and bulls when indexes move upwards. This could be on a day today basis. One day the commentary insinuates bullish sentiment and the next day we could be hearing a bearing tune. Well, guess what; we the watchers encourage this way of broadcasting as we are glued to the TV helping improve their ratings.

Whatever the case maybe, we as a group, investors, professionals and media bring a culmination which spells NOISE. We may believe that by constantly gathering and interpreting information, we are adapting to the investing environment. Instead, we induce a higher element of trading by constantly changing our portfolios. Higher trading creates more mistakes by default.

Given reasonable time, the fundamentals of a sector, a company or investment products tend to converge to a reasonable valuation. In other words, if one treats an investment as a business, the possibility of success increases. This obviously sounds like the conventional wisdom that has been preached since the Benjamin Graham wrote “The Intelligent Investor”.

I am merely stating the fact that watching the ticker is a negative aspect for an investor who already dealing with market nuances. An investor’s time would be better spent on how the underlying business of the security under consideration is performing on a continual basis. The business model that influences the earning power of a company defines the growth in the company stock. The price of a stock is just that; a snap shot of the price at a particular moment in time.

In any event, we need to be very aware of the innate impatience of our investing sentiment. This phenomenon compels us to react, not pro-act but react to particularly the price movement of security prices. It is in my opinion that this phenomenon stems from our innate herd mentality.

One cannot confidently embrace patience in the face of a trend that moves against us. It is counterintuitive to stand one's ground in front of a trend that is developing against us. But the truth of the matter is that there is no trend in short time frames, unless there is a shift in the fundamentals of the underlying security.

3

Indexing vs. Active Management

I view the world of investments within two-time horizons; short-intermediate and the long-term view. This sounds like a cliché that we have all heard a thousand times but the difference lies in my belief that in short–intermediate term, markets are driven more by sentiment and investor psychology, whereas in the longer term markets have tendency to aggregate stock prices based on actual fundamentals of the economy, which trickles down to the performance of respective sector's and further down to individual companies.

Let me explain my thoughts and put them in a visual sequence for the reader. Imagine a weather person at your favorite local TV channel attempting to explain the weather for the following week. Visualize the arrows on the weather map moving from one region to another illustrating the movement of the currents, providing a visual of the expected changes. This in my view is a great analogy explaining the movement of investment assets in the short and intermediate term.

The basic premise of investing is based on the fundamental growth of the underlying business. Investors are concerned with the return of their capital and return on their capital. If the business was not tradable on a stock exchange per se, these investors would expect returns in the form of regular dividends, additional shares in the business and eventually some kind of exit route.

But the concept of a centralized (stock exchanges) trading system allows a perpetual exit route for investors. Again, if we stay with the concept of a non-stock exchange world, the value of a company will only grow as it adds value to a certain commodity or provides valuable service(s). If the net money supply in that kind of world doesn't grow (in other words, the central banks do not print money) then stock prices can gain or lose value only by transfer of money from one asset class to another or in this case from one company to another.

The investment community has finite disposable income and investment assets during shorter and intermediate time horizons. But in the longer term, central banks across the globe print money based on their region's productivity. I believe that the world and the working population in it is continuously trying to add value. This is being done on the production and the services facets of business. The Federal governments of most countries with a capitalistic platform have gravitated towards using domestic production and inflation measures to manage money flows. In other words, the printing of fresh money is a function of value addition to natural resources and the human capital. The ultimate endeavor is to raise the standard of living for the masses.

Historically, humans have exhibited a tendency to pursue constant progress. Therefore, my view on long term is that human psychology pushes us forward to pursue innovation, better business processes, better products and services to add to the quality of life of masses. When this happens, the quality of life gets better due to the abundance of products and services. In addition to having access to better material things available to us, the cost of these products and services also becomes more affordable to the masses, as productivity increases.

Obviously, there is a disparity across the world in regard to the rich and the poor. But the point I am trying to make is that over the decades and centuries, more and more people are living better and better lives. For example, currently there are over 350 million people in India who own and use cell phones. This phenomenon was unheard of only 10 years ago. There are over 60 million people in South Africa who are signed up with Mobile Money and accomplish most of their commercial and personal banking on their mobile phones. If we believe that not only does progress like this adds to quality of life but also to trade and commerce, then the central banks in these regions can rationalize printing more money. This process is a continuum which can work both ways; if economic productivity is growing then it is prudent for the system to be infused with more money. On the other hand, if productivity is decelerating then the infusion of more money will only result in inflation which by definition is “too much money chasing too few goods…”.

Before I go on, let me provide a brief view of how I see the Wall Street’s connection with Main Street. The capital markets are primarily comprised of two main asset classes; debt and equity. Every security product in the market can be classified under these two asset classes.

Stocks, bonds, futures, options and real estate are all offshoots of either debt or equity. An investor either takes an equity stake in an investment or lends money in the shape of different types of debt products. Even products like convertible bonds are a hybrid between debt and equity.

Having said that Wall Street professionals are constantly evaluating the intrinsic value of a company/security, which can be broken down into its debt and equity. Even though Wall Street has experienced advances in financial modeling, sophistication in computing, umpteen algorithms formulae, complicated simulations, we cannot refute the fact that these valuation models are a culmination of inferences developed by human beings.

One would agree that majority of humans have emotions like fear and greed that somehow finds their way to the forefront when it comes to money. Most financial professionals have the reasonable intelligence to understand and regurgitate security valuation models. The underlying idea of Wall Street is that the professionals working on it know more than the layman. Unfortunately, at the end of the day they are still human beings and have the same feelings and emotions as any layperson.

During normal times, these professionals can hide behind their academic models and build a façade of esoteric flamboyance. But most of these professionals succumb to their emotions; fear and greed during times of extremes and behave no differently than an average investor. By default, the human brain is rigged to act irrationally when rationality is needed most. I recently read a book in which the author argues that there is intelligence in masses. In other words, "making disastrous mistakes is palatable and condoned by majority of the people, as long as they were made within the paradigm of conventionality…”.

As the market provides an opportunity for participants to produce outlandish results, it catalyzes these two emotions at exactly the wrong time for the masses. Investors have experienced market booms many times in the past only to end up in busts. A common phrase I recall in all the past booms has been, “…this time it’s different…”.

As mentioned before, there is a finite amount of currency as a part of disposable (savings) income for investors to set aside for investing. Any sane investor will attempt to evaluate the best risk reward scenario for himself and then invest those assets in the most enticing product to follow his or her thesis. The problem is that if that particular investment turns against the investor, which it usually does in the short term, he or she will be compelled to question his/her analysis and investment process. This phenomenon usually gives rise to self-doubt or re-appraisal of the market scenario by the investor.

As kids, we have been consistently told that the process is more important than the final outcome. In other words, we were inculcated with the concept that it is important to understand the process of reaching an inference. Unfortunately, the arena of investing is not as forgiving. An investor (retail or institutional) could have the most thought through and robust process but still not achieve economically fruitful results. On the other hand, if the investment gains a considerable amount in the short term, the investor may fall under the illusion of attributing success to his or her selection process and investing acumen.

In the first scenario, which seemed like a failure in the short term, the investor can start to develop self-doubt, or the festering need to change his valuation models and hence the investing style. Alternatively, success would naturally breed confidence and compel the investor to venture out into other areas boldly and carelessly if success continues to come relatively easily. Investors in this situation will maybe take upon higher and unnecessary degree of risk in order to replicate that success.

Under normal circumstances an average investor does not have access to unlimited investable assets. This leads to the short-term oriented tendencies, which influence investors to move assets from one region, an asset class or a security to another in the hope of investing before the masses discover securities in that particular area. On the other hand, an unsuccessful investor may also decide to chase performance and start to move assets to the sectors or investments, showing the greatest degree of momentum.

It's apparently logical to try and fix things when one feels displaced by having made a perceived error. In addition, it also seems logical to continue to replicate one's success; as that is the objective of the game. So due to the short-term emotional needs and the finiteness of capital, investors are compelled to rearrange their portfolios giving a continuous flow of capital within and across various asset classes and sectors.

The long-term scenario seems to take another dimension. **The concept of long term doesn't have a specific time horizon; instead it's a continuum.**

Now, logistically one can infer that as more money continues to enter the capital markets, on the long term, each sector, (having experienced inflow and outflow of monies in the short term) receives a continual flow over time. Therefore, long-term investors can hide under the concept of ignoring short term fluctuations and believe in the good old capitalistic society, to do well for all on a continuous basis.

This brings us to the crucial discussion of indexing vs. active management. John Bogle, the founder of Vanguard Inc., has been one of the biggest proponents of indexing. Indexing puts one’s portfolio on cruise control; the portfolio is benchmarked to a broad-based index in a particular region or an asset class.

Most US corporate retirement plans provide participants with an option to invest in US domestic large, medium and small index funds, in addition to international and bond index funds. As an indexer, the investor should firmly believe that it’s virtually impossible to beat major market indexes in the short and long term. This strategy has worked during different economic cycles. Investors can use index funds to develop a basic asset allocation model to rebalance across major asset groups.

Let’s explore how well an indexed portfolio would perform. As shown in Figure 1 and 2, we can see an illustration of a portfolio using index funds. The pie charts below illustrate the change on a respective portfolio based on the movement of these index funds.

Figure 1

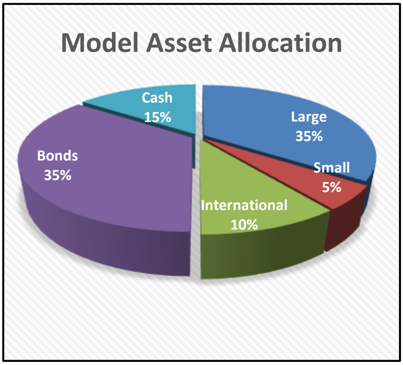
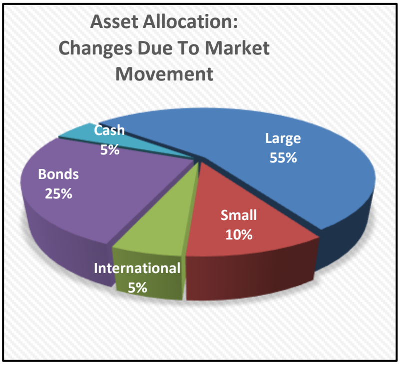


Figure 2



For example, it can be observed that the Large Asset class percentage changes from Figure 1 to Figure 2. In Figure 1, Large asset class comprises of 35% of the total portfolio, but it grows to 55% in Figure 2. If no fresh money was invested in the Large asset class, then this change is obviously due to the growth it experienced over the time horizon under consideration. Similarly, the changes in other asset classes are also a function of market changes.

The idea of having more than one asset class in a portfolio is due to the concept of correlation. We have heard the statement “Don’t put all your eggs in one basket” umpteen times. Despite investing in index funds, most financial professional and portfolio

managers are proponents of diversifying a portfolio within and across all asset classes.
The allocation balancing can be used for strategic asset allocation which commands a discipline to buy low and sell high. The idea of buying low and selling high can be done by just rebalancing. It can be observed in the Figure 2 that the large index has grown to be a bigger percentage of the initial portfolio exhibited in Figure 1. To achieve buy low and sell high is to rebalance this portfolio, by bringing the portfolio asset classes back to the original guidelines. For instance, let's assume that the original model prescribed the Large and small indexes to be at 35% and 15% respectively. Based on the growth experienced by the large index and the decline in the small index, we would sell part of the large index to lower the percentage exposure back to 35% and add to the small index to bring its exposure to 15%.

This seems logical. It's prudent to stick to a discipline. Then again, the moment an investor starts to rebalance a portfolio, he/she has introduced active management, even though the products used are index funds.

Professional investors have used concepts of enhanced indexing. This has been accomplished by allocating part of the portfolio using financial leverage along with short funds. Once again, as an investor starts to tinker with the portfolio and attempts to add value by either rebalancing or addition of sector funds, the purity of indexing is lost, and the portfolio becomes an actively managed one with indexed products.

Active Management

The basic theme behind active management is to attempt to make proactive changes to a respective asset base so that the results outperform the relative market index(s). Usually, a professional money manager will benchmark his/her relative performance to a broad-based index or a set of indexes to measure his/her relative performance. In the end, the endeavor is to perform relatively better than the market or the measuring gauge; an index in this case.

Even though active managers could take a longer-term view, their portfolios would be divergent from the market benchmarks. That's the only way they can attempt to beat the markets. There are umpteen ways to strategize and use various concepts in developing an active portfolio management style. These styles may not be confined to long only bias but can also include and limit to shorting an asset class or a security to benefit from the declining market.

One of the extensively used phrase in active management has been "Tactical asset allocation" In other words, the objective in this style of money management is to under or overweight certain sectors and styles in portfolio configuration. The goal is to be able to achieve superior returns by being invested in areas expected to do better than the benchmark index's performance and being underweight in areas that are expected to underperform the index. Of course, it is the portfolio manager's job to evaluate the areas that he/she expects to outperform the market and vice versa.

The fact is that majority of the active fund managers do not beat the markets. A Study [2] conducted by Reinman suggests that "Only 24% of Active Mutual Fund Managers Outperform the Market Index".

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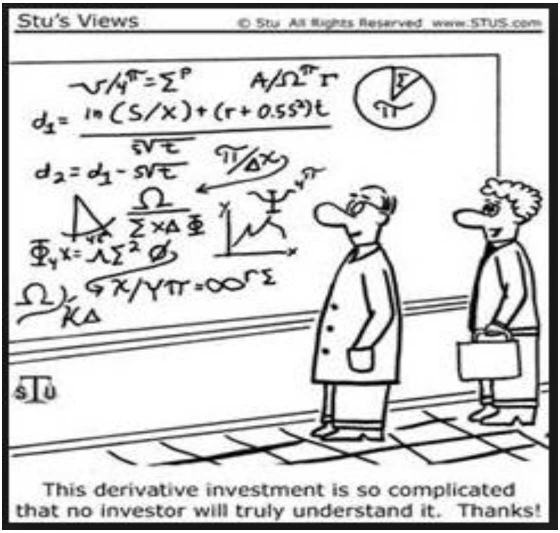
[2] Source; https://www.nerdwallet.com/blog/investing/homepage/active-mutual-fund-managers-beat-market-index/

- Only 24% of professional investors beat the market over the past 10 years.
- Index funds outperform actively managed funds by 0.80% annually, but active managers have lower risk.
- Active managers outperform the index by 0.12% before fees, but charge more in fees than the value they create.

The data is compelling for an investor to be biased towards passive investing instead of active investing. Then again, humans are competitive and resilient and want to compete in any environment they are in.

As humans, it is our tendency to believe that we are better. Take the lottery concept for instance. Most people buying a lotto ticket believe that they have some chance of winning the jackpot. The probability of winning the lottery is about 1 in 107 million. In other words, it's 4 times more probable that one will be hit with lightening than win the lotto. But guess what, people playing the lotto do believe somewhere in the back of their mind that they may be the next winner. Otherwise, why would they buy a lotto ticket. Therefore, I believe that the instinctual qualities of humans to move forward in pursuit of progress, compels them to attempt and beat the market, in other words, exceed the aggregate investor sentiment. Most institutional investors understand that they are measured by their performance. They have a vested interest in outperforming the average market index used to gauge their relative performance. They are definitely rewarded for outperforming the markets in the form of profit sharing or more assets to manage which translate to higher management fees. However, they are not penalized for underperforming the markets.



Managers are legally not allowed to share losses. This influences these managers to adopt and use strategies that may take more risk for the sake of higher returns.

One of the strategies active managers utilize is the use of leverage and derivative products. Leverage is the use of borrowed funds based on the assets in the fund or portfolio being managed. Assets like bonds and stocks contained in a portfolio can be pledged to borrow extra funds that in turn can be invested in the market.

In other words, an investor can use the current funds to borrow monies and invest that cash into existing or new investment ideas. In addition, managers can use derivative products using leverage that enhance the performance of an investment.

Well, there's always a catch? A well-known statement on Wall Street is "Return vs. Risk". When we take higher risk, we are expecting higher return. On the same token using leverage and derivative products can also lead to higher losses, if the investment under consideration doesn't not come to fruition in favor of the manager.

One of the main reasons that Wall Street has utilized higher leverage in the recent years is due to the prolonged lower interest rate environment. Federal Fund rates have been negligible over the last 9 years (2009-2017). This has been an era of declining and low interest rates since the mid-1980s. Margin borrowing rates at certain brokerage companies have been in the

1-2% per annum rate. Easy money influences investors to take higher risks, especially when there is little or no real consequence of a manager's underperformance. It therefore has provided abundant incentive for managers to start new funds with promise for outlandish returns for investors. But the fact remains that money management is a very difficult task to perform and more importantly, perform consistently.

Having said that, there is pertinence in considering active management as a part of your portfolio and to control risk with the right combination of active managers or active management style. The risk in using umpteen active managers is that the portfolio becomes a collage of random securities instead of being a tapestry of well woven long-term fruitful investments.

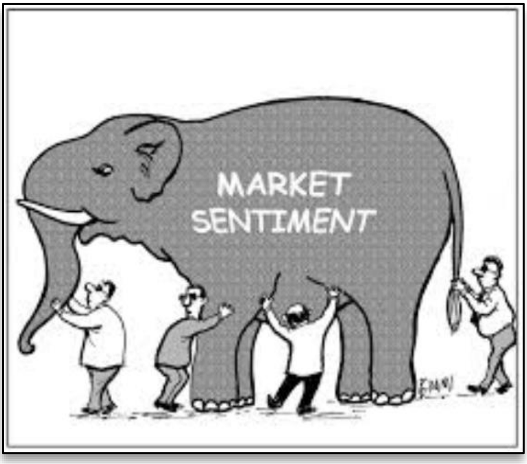
Another interesting and esoteric concept is to develop a portfolio that can benefit from rising as well as falling stocks. The investment manager, either through quantitative financial models or qualitative research, evaluates the targeted security universe and then uses the most attractively valued stocks to go long and the least attractive stocks to go short. (An investor investing in a security or being Long that security expect to gain from the security's appreciation. On the other hand, when an investor is short a security, he/she borrows the security and sells it in the market with an expectation to benefit from the decline in the security value). This is known as Long Short strategy.

A number of alternatives (or hedged) portfolios in the form of mutual or exchange traded funds use these strategies. In addition to using this long short strategy, some managers have gone to the extent of using leverage to magnify returns while attempting to keep the long / short exposure at 100%.

This is done by shorting securities up to a certain percentage of the portfolio and using the proceeds from the shorts to increase the long exposure.

For example, let’s say that a portfolio value of $100,000 comprised of 25 companies that the manager has invested in or is long. To gain from stocks expected to underperform, the manager shorts 10 companies with a total exposure of 20% or $20,000.

After these stocks are shorted, the portfolio will receive $20,000 in cash that could be reinvested in the portfolio. The Portfolio Manager now has $100,000 in long exposure, $20,000 in short exposure and $20,000 in cash. At this point the manager can use $20,000 in cash to increase the long positions. This creates a $120,000 long, $20,000 short position portfolio for a net exposure of 100%. There could obviously variations on the percentage long /short; for example, 130:30, 120:20 etc.



On paper this strategy sounds great. Obviously, there is always a catch. The catch here is that if the manager's stock picking skills are subpar, the performance of the portfolio can be significantly worse than the market indexes due to the magnifying effect of leverage. Once again even though this strategy consists of a promise to outperform in bull and bear markets, the aspect of human stock selection cannot be diminished even with this ingenious concept. As the market is comprised of human emotion, we cannot predict how the aggregate sentiment will change with the flux of fundamental and technical variables.

The point is that it becomes very difficult to consistently buy low and sell high. In other words, it is difficult to accurately gauge market sentiment majority of the time. Technical analyst uses historical data to gauge investor sentiment and invest using charting techniques. Unfortunately, history doesn’t always repeat itself perfectly and even if humans portray their investing behavior on fear and greed, varying conditions catalyze the markets in an unanticipated manner.

The question then becomes of a choice. A choice to either continue to try and attempt to beat the market or invest in index funds in order to replicate the broad-based market. In the former case, we may get fooled by randomness and outperform the market. In other words, we could get lucky and the scenario contemplated by us actually plays out resulting in extraordinary returns.

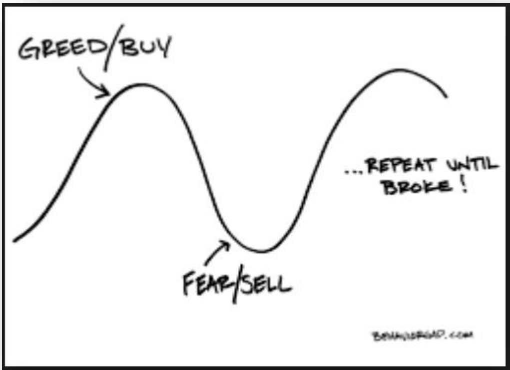
In either case one cannot be sure that a single strategy will work consistently. Even the best managers like Warren Buffet have suffered periods of underperformance. Having said that, it doesn't mean that an investor should not attempt to actively manage a portfolio.

4

Fear is α to Selfishness; Greed is α to Carelessness

The following chapter talks about the contrarian quality of an investor that can make him /her successful relative to the aggregate market.

Capital markets, as the name suggests are based on the concept of capitalism. The classic definition of Capitalism is; “the economic system in which all or most of the means of production and distribution are primarily owned and operated for profit, originally under fully competitive conditions”.



The key word here is “competitive”. To analyze human behavior with clarity, we should view competition in two major dimensions; economics and commerce. The two dimensions pertaining to this analysis and this book would be the behavior on Main Street and Wall Street.

Both Wall Street and Main Street are flushed with talented, determined and economically motivated people. How they behave in the two areas is not only divergent but mind boggling.

The idea behind most Main Street business endeavors is to envision an idea and then bring it to economic fruition through organization of resources (physical and human), hard work and perseverance.
I mean that most entrepreneurs have an idea that can come to fruition by adding value in the form of products or services, primarily for profits. The byproduct of this activity is the benefit it brings to the masses.

In other words, capitalism encourages ideas that promotes invention, create economic products, catalyze efficiencies and processes that enhance consumer experience and services that create productivity to either existing or new business ideas.

I may have missed stating a number of variables in this paradigm, but the point is that in order for an idea to come to fruition, a lot of patience, hard work and constant presence of ambition is needed. Once again, the key word in my lexicon is "PATIENCE", while an individual or a business entity diligently works and holds on to a dream.

On the flipside, the alter ego of Main Street is Wall Street, where the Mantra seems to be: "Instant Gratification". The primary purpose of Wall Street is to provide capital for Main Street. Also, Wall Street provides trading platforms to bring liquidity and some semblance of stability in securities and commodities that are publicly traded.

"Is it better to invest during a bull market or bear market? Depends...would you rather be gored or mauled?"

Financial services provided on Wall Street is one of the most lucrative industries there is. The incentive for people working on Wall Street is to provide a vast array of financial products and services which help them generate immense monetary gains. I believe that this monetary incentive on Wall Street influences the so called, financial professionals to catalyze a marketing campaign on these financial instruments and make them attractive for respective investors.

The story of excess doesn't stop at the professionals who run Wall Street but actually starts with the people who run our country. For example, during the 1929 depression, the US government was desperate to fuel economic growth. Among the various monetary and fiscal policies, the US government decide to enact a tax law to incentivize entrepreneurs and financiers to enhance employment. This incentive was to lower the tax rate to 15% on profits created under certain fund entities like Limited Partnerships etc. This law continues to this day and provides excessive and disproportionate tax benefits to certain entities created under these IRS tax laws.

Consider this; currently, there are many fund managers who are compensated in the hundreds of millions of dollars per year, and a few that make more than a billion dollars per year. Would you believe that these managers only pay 15% on their compensation? Another name for this is "Carried Interest". On the other hand, an executive or a corporation making more than a million dollars a year could be liable to pay taxes in the 35-39% range; and that is just the Federal Tax Rate. To say that the financial industry has a convoluted and distorted tax incentive would be an understatement.

Within the array of services that Wall Street provides to retail and institutional clients, a major aspect is research. Research comes in different shapes and sizes and obviously with varying degree of depth and usefulness. No matter how reputed, how experienced or how in-depth a research piece is, its purpose is to provide some rational evaluation and expected returns of a security, an industry or a concept under consideration.

Sophisticated financial models have been evolving on Wall Street for over a century. From Benjamin Graham's value investing to Black & Scholes's Nobel Prize winning options valuation model. Despite the advent and sophistication of these models, one thing remains the same; the human element.

As investors on Wall Street evaluate securities and various products, they sub-consciously evoke their investing psychology. During normal market conditions, buyers and sellers even out market volatility. Buyers and sellers are matched, and stock buys and sells are evenly matched with palatable and somewhat orderly variation in security prices. But once in a while certain idea gain so much momentum that there is noticeable and significant imbalance between buying and selling. Prolonged activity which builds market sentiment one way or another fuels and creates booms and bust market cycles. In other words, once the market experiences momentum in a particular sector or security, it's easy for investors to get swayed and overshoot on either side of the mean (a reasonable value based on historic averages) value.

Despite the fundamental concept that capital markets promote capitalism (hence the name), all investors are motivated by money. The concept of markets basically epitomizes the one directional focus on money making, which manifests the inherent characteristic of sacrificing long term economic benefit to a corporate or entrepreneurial endeavor. This statement cannot and should not be taken lightly.

Institutional and retail investors on Wall Street are not contemplating how they can move a specific business to the next level but are primarily concerned with the growth of their own investments. Even though the capital markets help businesses with funds that they wouldn't have otherwise, the primary purpose of investors is to invest in a business that will provide economically fruitful results and discards the ones that fail to do so.

If we closely consider this phenomenon, we will realize that it comes from a simple but important trait of human psychology. Humans are like dumb driven cattle, always looking at the behind of the cattle in front. Boom and busts are created by investors following the crowd. During bullish phases, momentum provides a false sense of security to follow the crowd. In other words, “...there is intelligence in masses”. If the majority of investors are moving in one direction, then it must be right.

Despite the financial acumen and sophistication, even institutional investors do not want to miss the momentum boat. In times of bounty or in moments when it seems like “it’s different this time”, greed sets in and investors become careless. The GREED factor takes over.

Evidence states clearly that despite being aware of history and the painful market bubbles, most investors still succumb to the temptation of a boom and give into greed. In addition, this tendency is exhibited mostly during the ending phase of the boom. Then again, if each investor took away the greed factor and replaced it with patience, we would eliminate market bubbles and excesses. If patience was truly embraced by most investors, we would have umpteen Warren Buffett's in the market place. On second thought we may not have the only Warren Buffett with excessive returns as the markets would be a lot saner. But then markets wouldn't be markets as we know them.

Every major boom is generally followed by a bust. Investors know this empirically and in some instances first hand, but each time they exhibit a tendency of ignoring the statistical facts in the make-believe paradigm that "ITS DIFFERENT THIS TIME…". I also believe that a reasonably smart investor, (by that I mean someone who understands the basics of capitalism) recognizes during these booms that it cannot last forever but somehow finds reasons to compel herself that its different this time.

Just as market participants believe that the paradigm was different during the boom, investor fear Armageddon with every significant bust.

The major catalyst for booms and busts is the movement of investor sentiment and psychology from one side of the trade to the other. As Sir Isaac Newton said, “…and object will remain in motion unless acted upon by an unbalanced force…”.

Masses exhibit this extreme behavior in hordes during the maturity of a boom and the later stages of a bust. The momentum on either a bullish phase or during a market correction can be influenced by external forces like government regulation, change in tax laws, currency fluctuations etc. The crucial aspect is that the human emotion magnifies the ramification of fundamental variables and pushes it out of the rational realms of its valuations during market rallies or corrections.

A major characteristic missing in human psychology in the gamut of booms and busts is **Patience**. We may not have booms and busts if majority of investors exhibited patience during these extremes. We have all heard the phrase that “Patience is a virtue”, since times immemorial. I don’t believe that we comprehend how important this human characteristic, known as “PATIENCE” plays a role in not only investing but in all aspects of life.

Most of us remember the dot.com bust of 2000-2002. This was one of the major market corrections which saw umpteen number of technology companies go bankrupt. Subsequently, greed succeeded the bust in the form of the real estate bubble, which developed between 2003-07-time frame. This excess was experienced after fear had pushed the technology index (known as the NASDAQ) down by more than 80%. It is one thing that a bubble develops after a reasonable time has passed and the excesses have worked through the system, but in this case another bubble started to form right after investors had experienced one of the worst market corrections in the form of the dot.com bust.

A natural and logical behavior of investors should have been one of caution, but instead greed as usual got the best of investors and started another cycle of boom and bust. The next bubble was forming in the REAL ESTATE market, which was viewed as an asset class devoid of any downside. No one could fathom the true ramification of this bust.

For those of you who were invested in the capital markets during August – October of 2008, I need not say anymore. The market decline during this time frame was so swift and so severe that it didn’t matter which market, which asset class, equities or debt one was invested in. There was no place to hide. The Dow Jones Industrial average lost over 20% in less than three weeks in late 2008. The major broad-based indexes in the US had lost approximately 40% by the second week of October 2008.

Most Asian markets had lost 50% of their value during the same time span. It was truly a bloodbath with no solution or aid insight.

Despite a major Federal bailout plan designed to bolster the ailing US financial infrastructure, the capital markets lost over $1.5 trillion by September 2008 overall then US lost $19.5 trillion in household wealth. Most seasoned investors who went through the last major declines, swerved that this episode of downturn was the worst and most broad based that they had experienced.

Extreme GREED had turned into extreme FEAR!!!

I would however like to add that the lack of confidence this time was in our own financial infrastructure and the support that we deserve and expect from the government. On one hand we as a capitalistic society chant the Mantra of free markets, but on the other hand, at the climactic instances, we run to take cover under the protection of our respective governments. I do not believe that the government should not have the regulatory role, but my point is that investor behavior under extreme situations clearly illustrates the inherent fear, and how exaggerated it becomes when we exhibit the dumb driven mentality.

As mentioned by the late Barton Biggs (the cofounder of Traxis Partners and the writer of ("Hedge Hogging"), "Booms and busts are created when majority of the market participants assemble on one side of the table". The phase of market downturn during September through October 2008 was a classic example of extreme fear and movement of most players to the selling side.

An important observation of investor behavior is how investors exhibiting greedy attitude would do under these fearful circumstances. They say that the recipe to make money is to "buy low and sell high". A 40% decline in a broad-based index like the Dow or the S&P 500 would have been great buying opportunity from any historical perspective. But fear was at the highest level during the end of 2008 and the first quarter of 2009. This was exhibited in the assent of the Volatility Index (VIX)[3]. VIX: an index which is also known as the investor fear gauge, traded as high as 60 during the last quarter of 2008. To put this in perspective, this index has traded with an average of 15-17 for the last decade. Only the smart investor will use that opportunity and the rest of the investors will wait for the markets to gain and start buying high so that they can start selling it at lows again.

One of the factors which helped fuel the Real Estate bubble and reckless lending was the concept of stated income. Let me explain how ridiculous this was. Stated income means, that the loan applicant states what they earn. I understand that we need to trust a fellow for being honest but that wasn't the case during the real estate boom. Government agencies were given the mandate to help underwrite the loans as leniently as possible and the financial industry took full advantage of that. Loans were granted to people with

[3] VIX: **VIX** is a trademarked ticker symbol for the **CBOE Volatility Index**, a popular measure of the implied volatility of S&P 500 index options; the VIX is calculated by the Chicago Board Options Exchange (CBOE). Often referred to as the *fear index* or the *fear gauge*, the VIX represents one measure of the market's expectation of stock market volatility over the next 30-day period.

unprecedented leniency. This was because once these loans were granted, they then could be bundled and sold to the government or individual investors in the form of tradable securities. The role of government helped create the real estate bubble, in addition to a lack of acceptance of responsibility on the part of individuals buying real estate.

It was as if the whole system had turned a blind eye to the vicissitudes of leverage, as “IT WAS DIFFERENT THIS TIME…”.

We know what happened to that bubble. Just for the record, the US Real Estate bubble almost brought the global financial network to its knees. The situation was so grim during the first quarter of 2009 that the US government had to initiate a program known as TARP (Troubled Asset Relief Program), which issued over $700 Billion to help by providing liquidity and support the US financial infrastructure.

In other words, the government intervened with a hose which sprayed money on the problem. US government started buying distressed securities from banks to support their dwindling balance sheets. This situation was an absolute illustration of an extreme

bubble burst, which was caused by a collective sentiment of dumb driven investors.
I believe that capital markets operate by the aggregate psychological whims of the participants of that specific arena. Majority of the time the aggregate buying and selling in the market keeps the sanity in the system, but every now and then we experience times of extreme stress. It is in times like this that extreme greed or extreme fear translates to booms followed by busts.

As mentioned at the beginning of this book; investing: 90% Psychology and 10% Methodology. Understanding the combined direction of aggregate psychological extremes and acting on it can not only help create extraordinary wealth but also protect capital in times of excess. Therefore, instead of the aggregate emotion of greed resulting in carelessness and fear creating selfishness, one can attempt to invest against the aggregate psychology, add a bit of patience and become the next Warren Buffett. Sounds easy, doesn't it?

The toughest task for humans is to compel our psychology to be contrarian. I believe that humans are wired to be conformist, at the cost of their own demise. To be contrarian is especially difficult when money is concerned, as it happens to directly impact one's respective lifestyles. A successful investor has two distinct qualities: we have already mentioned PATIENCE, and the other is being CONTRARIAN. Like any aspect of our lives, it's easier said than done to capitalize on this simple advice.

Most investors do a reasonably good job of informing themselves of current economic conditions, performing adequate research or handing their portfolios to smart investment professionals (Smart Investment Professionals; an Oxymoron). Unfortunately, it takes an incredibly higher degree of discipline to maintain one's nerves during times when it's needed the most. Majority of investors will buy in tandem to momentum and expect the momentum to continue. Similarly, they will sell during down markets when everyone is selling.

It needs to be noted that the rules of the market and the advent of the Internet and communications allows market participants to act upon their fear quickly and in a reactionary manner. The reason the market has circuit breakers[4] is to allow a timeout and let investors

[4] Circuit Breaker: A **trading curb**, sometimes referred to as a **circuit breaker** is a financial regulatory instrument that is in place to prevent stock market crashes from occurring. Since their inception, circuit breakers have been modified to prevent both speculative gains and dramatic losses within a short time frame. As a result of being triggered, circuit breakers either stop trading for a small amount of time or close trading

think their predicaments through; in other words, let cooler heads prevail, work through the fear without the option to react.

Greed and fear as we know are the major drivers of investor sentiment. It is true that sophisticated models and robust computers aid experts in constantly monitoring and valuing different securities, but history clearly shows that the greed as well as the fear gauge becomes heightened as security valuations deviate from a reasonable mean.

Investors rationalize each bubble by believing that it's different this time, and each bust is predicated on the belief that investors become careless due to their greed. Eventually, the bust turns into a tragic decline where most lose fortunes, driven by the extreme fear

early in order to allow accurate information to flow amongst market makers and for institutional traders to assess their positions and make rational decisions.

which compels market participants to salvage whatever they can at the worst possible time.

Even though most investors believe and embrace the concept of buying low and selling high, how come they always deviate from acting at opportune times. Time and again markets experience major disruptions on the upside and the downside. The irony is that it’s the mass behavior that creates these extraordinary events of booms and busts.

It would seem logical for dumb driven cattle to jump off a cliff following its own group as opposed to stopping, look around and evaluate the situation. I believe that instinctually, fear compels one to act selfishly. How else would you justify the behavior of investors who remained invested during the height of the markets but sold out at extreme bottoms?

I guess it’s no wonder why Warren Buffett is such a successful investor as he believes in being fearful when others are greedy and greedy when others are fearful.

5

Contrarian vs. Conformist

There is a popular saying, "Humans are social animals…". At the risk of losing my readers, I would go one step further and say that ***majority of humans are dumb driven cattle***.

I believe that there are two phenomena that conventional wisdom states are very important in the field of investing; one is the time horizon of an investor and second, the belief that markets will gain reasonable value in the long term. Before we debate these issues further, I would like to remind you of the words Lord John Maynard Keynes mentioned, "In the long term, we are all dead". So naturally, it behooves us to define long term for ourselves as investors (What is long term???).

The second point is one of contention, which states that all markets will gain value over the long term. Let me explain! I believe that capital markets provide an arena where investors are constantly attempting to outdo each other so that they can reap extra-ordinary returns. If that's not the case, then all participants of the markets should be invested in index funds. The allure to make above AVERAGE (in this case relative to respective indexes) returns, compel investors to discover exotic areas and products that provide a ray of hope in the endeavor to beat the major market indexes; a proxy of market performance.

The endeavor of most financial institution’s is to provide an array of solutions to an insatiable, ever increasing investor population, in the form of exotic and complex products. The more complex the product the more premium it commands.

The phenomenon of moving capital from one asset class to another or one product to another is short term perspective in my view. Asset prices rise and fall with the supply of money into and out of an asset. In other words, due to the finiteness of money supply in the short term, a significant amount of money flow into an asset or security inflates its respective prices and vice versa. Secondly, conventional wisdom’s belief that asset prices will surely rise in the long term assumes that there is a continual process of value addition in areas of manufacturing and services in a particular economy and the economy will continue to consume at a constant or increasing rate.

One of the objectives of the Federal governments all over the world is to print money and circulate it in their respective economies in an orderly manner. The endeavor is to raise the standard of living of the population, with access to better quality goods and services at the cheapest prices possible. If the supply of money continues to rise, it allows a higher percentage to be distributed amongst the various asset classes and hence supporting the theory that all asset classes will rise in the long term.

If we believe that easy money and value addition will continue to add value to securities, we can simply believe in the fundamental theory of long-term investing and invest in the broader indexes. On the one hand, as investors we can try to outdo the aggregate investor (the market as a whole) by moving money to assets we believe will outperform the markets; a tough task.

This brings us to the concept of conformist vs. contrarian. A conformist would tend to believe that it’s virtually impossible to manage portfolios with performance that consistently beats broader market indexes. This type of investor would be satisfied investing in index funds and tracking the general market movement. On the other hand, a contrarian investor believes that above average returns can be accomplished by actively managing a portfolio. Active management consists of using various investing techniques with an objective to produce results superior than the market.

The endeavor of the contrarian investor is to explore areas that may have been ignored or undetected by the broader market and invest in those undervalued securities. In addition, the same concept would apply in reverse to areas that are overvalued and short these securities to benefit from their eventual decrease in value.

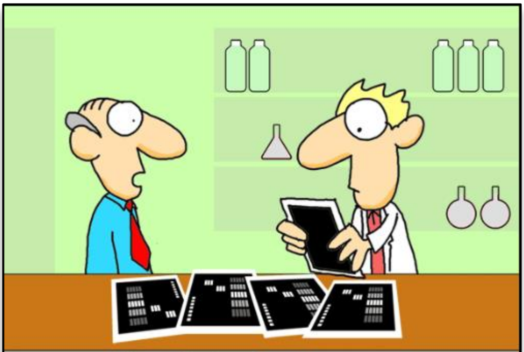
Another level of active management comes in the form of Hedge funds. Hedge funds, which are configured around hedging management concept, attempt to enhance the returns of their funds by using various unconventional investing methods. One of those methods, which Mr. Warren Buffet has called WMD (Weapon of Mass Destructions) is the use of leverage. Leverage can come in the form of borrowed money or the use of securities known as options and futures. A combination of leverage amalgamated with derivative securities like options and futures, have the ability to produce magnified returns, but come with a price of heightened volatility. Leverage can enhance the returns of a portfolio exponentially, but it can also backfire and experience heavy losses if the strategy doesn't come to fruition.

In my view, an active manager believes that there are inefficiencies in the market in the form of undervalued and overvalued geographic regions, sectors and individual securities. An active manager's objective is to exploit these inefficiencies to generate returns in excess of the proxy index(s) they are compared to. In addition, creative managers are concerned with the return of portfolio in terms of the risk they expose their clients to.

Risk can be measured in many ways. One of the traditional methods is to calculate the volatility of the portfolio. Asset Managers provide a measure of the total return of the portfolio per unit of the risk. This provides a measure of the return based on the risk a fund or asset manager is exposing the portfolio to. I believe that risk should not be the mere volatility of the portfolio.

If an investor has a really long-term investment horizon, the short to intermediate volatility doesn't matter. On the other hand, a highly volatile portfolio can hurt an investor if he or she is depending on the portfolio for aspects of his /her life like retirement needs, college education, medical expenses etc. An investor should not be caught in an adverse situation and be compelled to liquidate assets under volatile or negative situation.

A contrarian manager will obviously have a higher deviation of their portfolio performance, relative to a comparative market index, as he or she under or overweight's certain sectors of the market or the types of securities used for investment. A conformist's portfolio will move in unison with the index he or she is invested in or uses as a proxy.


“Data don't make any sense, we will have to resort to statistics.”

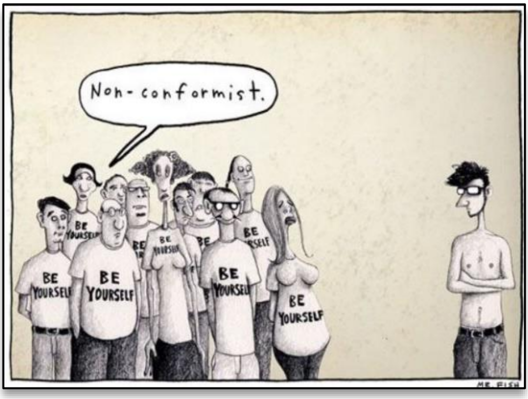
Measured quantitatively, the deviation of a portfolio around its mean is known as the standard deviation and is denoted by the symbol $\boldsymbol{\sigma}$. The standard deviation of the conformist's portfolio will be zero as it moves with the index. On the other hand, the standard deviation of the contrarian's portfolio will vary widely.

It would be above that mean if the manager's investment positions do well compared to the market and negative if the trades do not pan out. It is of prime importance for an investor to recognize what type of investor he or she is. An investor who may not be able to cope with extreme perceived volatility will sooner rather than later make cardinal mistakes of selling under fear and buying under prevailing conditions of greed. Similarly, an active investor will not be satisfied with the results of the index, as he or she will continuously feel that his or her process to manage their portfolio is underutilized.

In both instances, psychology plays a major role. Understanding of one's own likes, dislikes, mental attitude and reaction to movement in the portfolio relative to the markets, will help decide the type of investor one is.

An important consideration in understanding that the volatility of the contrarian portfolio induces anxiety and distrust in one's own convictions. This is primarily under the conditions when a contrarian's portfolio is underperforming the market.

As a contrarian, one would feel removed (an outcast) from the herd, as he or she drifts away from the direction the party is moving.



It would remind the contrarian investor, that the decision to go against the herd is proving to be a wrong one, and he is being punished in the way of declining value of one's portfolio. Ask yourself, how confident would you feel assuming a contrarian position to the rest of the investing community, watch your decisions go against you and still hold your ground. Most investors will succumb to insecurity and market sentiment sooner rather than later.

A superior (Contrarian, determined, headstrong or stubborn) investor will stick to his or her stance in the presence of extreme adversity if he or she believes in the concept and basic reasons that formed his or her initial opinions. Obviously, prudent adjustments to the portfolio are warranted, but being a true contrarian is not an easy place to be.

Since, not everyone has the time, talent or the temperament for researching and understanding capital markets, they fall into that 90% or the conformist category by default.

Even though majority of financial professionals believe in the strategy of buy and hold, this long-term phenomenon emerges from the belief that stock values will eventually converge to the fundamental value as the company. Therefore, a tremendous amount of talent and effort is spent by financial professionals to evaluate the intrinsic value of a company using its fundamental data which includes variables like revenues, expenses, profit margins, management efficiency and earnings per share, to name a few.

The advent of technology and communication has brought about a major change in the way of investor evolution. A few decades ago, technology did not allow the transparency and the speed of trading that we have access to in today's world. Cost of trading and cost of computers has significantly abated over the last two decades. In addition, introduction of complex yet user friendly trading software and easy access to the Internet highway has created significantly higher trading volumes on all domestic and global stock exchanges. Majority of the trading volume comprises of trades generated from financial institutions using quantitative methods and computer aided trading.

Despite the significant advent of algorithm trading and computer driven markets, there are investors like Mr. Warren Buffet, who continue to do well with fundamental analysis and investing in companies with a buy and hold twist.

We as investors must decide which school of thought we would like to subscribe to; Contrarian or conformist. Both have their pros and cons. The question becomes whether you want to believe in the herd or attempt to make considerably larger gains than the average conformist, with a comparatively large magnitude of volatility and risk.

6

Queasiness and Elation

I cannot emphasize enough, that the stock market is comprised of emotions. Even though the capital markets have evolved technologically, they are becoming more automated and driven by machines. There has been material augmentation of algorithm and automated trading in the last couple of decades.

"I'd advise not listening to a word I say."

Despite these developments, one thing hasn't changed. The codes and algorithms have been developed based on the behavior of markets which in turn is human behavior.

The endeavor of these algorithms is to recognize patterns that market participants have displayed in the past. In other words, we are looking at empirical evidence of human behavior during different paradigms and situations and then trying to replicate those using fast machines. Obviously, the concept of machines operating on behalf of humans is not that simple. However, the point I am trying to make is that the medium of trading may have changed over the years but the underlying significance and the role of human emotions in the markets remain the same.

One way to gauge buying and selling points is to gauge how we as investors feel emotionally during market cycles. Making money is pleasing to one's wallet. On the contrary, losses not only hurt the wallet but more importantly our egos.

I went through the market turmoil of 2008-09. This was especially traumatic as I watched my client's portfolios lose value, in addition to experiencing my own net worth vaporize. There was a time that I literally felt like throwing up while watching the ticker tape. It seemed as if the tape was nonchalantly communicating with me of the severe damage as it happened. I guess I should have read the chapter in this book on "The Ticker Tape Syndrome".

I persevered through the fourth quarter of 2008 and hoped that somehow the worst was behind us. Unfortunately, it was far from over. The markets, illustrated by the Dow Jones Industrial index had retreated to its 10 years low of 6,400 on March 9th, 2009. In other words, the markets had lost almost 55% from their high of 14,000 since October 2007.

I have never felt sicker to my stomach than I did during that time frame. At that time, it literally took a leap of faith for me to not sell my portfolio which was fully invested in equities. I remembered not being angry, not being frustrated, not being hysterical but having a feeling of complete helplessness. It compelled me to turn to the higher power number of times during this phase. All I could do is hope. I kept telling myself that tomorrow will be different. I guess when all else fails, one turns to praying.

The first week of March 2009 was absolutely dismal. The global economy was feeling the brunt of a seeming collapse of the U S financial infrastructure. Companies like Citigroup (99¢ per share; not a typo), Bank of America ($4.00 per share), General Electric ($6.00 per share) were trading in single digits with no end to the falling prices in sight.

Queasiness…that's all I could feel. As things turned out, leaving my portfolio as is was the best decision I could've made in that respect. The markets rebounded over 27% in less than six weeks. At that time, I had recovered a major part of my paper losses as I was invested in financials and smaller companies that led the gains. Unfortunately, some clients who retained my services later that year shared with me that they had sold everything they owned in the capital markets during February and March of 2009 and realized losses at extreme market lows.

The lesson learned from this episode is simple; one that has been chanted since the beginning of investing, “do not sell investments just because they are going against us”. Realistically and empirically speaking, markets do not experience an episode like 2008-09 that often; maybe once every 75 years. But on the relative scale we have all felt at one time or another during market corrections, the impulse to throw in the towel and say, “the hell with this”.

Fortunately, if we as investors can train ourselves to not go with our first impulse, instead step back and re-evaluate the situation during periods of high volatility, we would truly elevate our success rate.

It is counter intuitive to stand against the market trends. In other words, it's insanity to stand on the tracks when you know the train is moving your way at

1000 miles per hour. Even though this is a very gory and morbid metaphor, in the field of investing real money can only be made with thoughtful contrarian bets.

We all know that the movement of an asset class or a market sector is based on the flow of money either in or out if it. Despite the importance of fundamentals, human psychology rules. John Maynard Keynes once said, " one thoughtful investment idea is better than an array of thought-less ideas". Warren Buffett also mentioned, " no one got rich with a portfolio of 50 diversified companies...". In other words, Mr. Buffet was referring to entrepreneurs who became wealthy by investing in their businesses and persevering through good and bad times.

Similarly, we as investors can accumulate wealth by being contrarians. The important aspect is to be able to persevere, have patience and above all have the thick skin to ignore the masses.

Disclaimer: "This may be easier said than done...Why you ask? That's because the world of investing is made up of finite participants. If every investor took my advice and decided to persevere or be contrarian, then that would become the market trend. The truth is that only a few participants can and will outperform the market, and that also not consistently.

Therefore, I strongly suggest that we as investors first figure out whether we belong to the John Bogle camp and would be happy with the average market return or are in the Warren Buffett and George Soros's camp and believe that we can outperform the market… It's your choice".

The Need to Win Now

Capital markets provide a charade of unlimited investment opportunities. It is the biggest, the deepest and an industry with large array of investment products and services. In other words, it's the biggest arena to conduct business, whether one chooses to invest domestically or internationally. Choices are unlimited in equities, debt, real estate, futures and options or the currency markets.

In my view there is a distinct difference between traditional business (Main Street) and the capital markets (Wall Street). The progress and development in technology has not only resulted in ease of investment medium but has also provided a common person with huge exposure to various aspects of the markets and products. What once used to be confined to only the elite (institutions and high net worth individuals) is accessible to pretty much any investor.

This has had a major impact on the investment industry. The speed of asset flow from one asset class to another or one geographic region to another has increased exponentially. Investors who have been constantly reminded of the long-term benefits of investing have recurrently experienced otherwise. For instance, General Electric (GE), the embodiment of the US economy, traded at a low of $8.00 as of late 2008. The stock traded at a high of approximately $60.00 in August 2000. A patient investor invested in GE would have lost 95% of its value in less than 8 years. The mantra was, "what happens to GE happens to the US…" Not anymore!!!

To broaden this illustration, the Dow Jones Industrial Average (DOW: One of the oldest and widely followed US stock market index) was valued at 11,000 in the middle of 1999. By the first quarter of 2009, it had lost almost 40% of its value. Subsequently, it recovered its losses and reached 11,000 by the end of 2010. Now let's look at the flip side and use a different time horizon. From the lows of 2002 to the highs of 2007, the DOW gained almost 100%. Not too shabby for a five-year time span. Similarly, the S&P 500 index and the NASDAQ had respectively gained significant value for the same time frame.

The point I’m trying to make is that as investors we have submitted to the concept of evaluating our success or failure by where the net worth of our investment accounts is at a single point in time. If we’re lucky, we are obviously reviewing our investment performance during times of plenty and if not then we’re cursing ourselves during periods of major economic deceleration. Then again, there are mediocre periods that have us scratching our heads and questioning the paradigm of our investment philosophy.

“Nature does not play any favorites, instead it’s a continuum…”. We as investors forget that the only constant in life is change, which is particularly applicable in the area of capital markets. Then again, if the entire pool of market participants could exhibit some form of self-restraint, we would then avoid major booms and busts. Where is the fun in that?

It would be extremely difficult but prudent to view booms with a certain sense of trepidation and busts with an enthusiastic sense of opportunity. The problem with that is that as investors we continue to believe in the trend and attempt to act prudently; both on the upside and downside.

Consider a time when you invested in a security with enthusiasm, believing that you chose that investment at a great value, only to see its value plummet precipitously. More than hurting your net worth, that particular trade bruised your ego; didn't it. In this situation, a logic driven emotionless investor will return to the drawing board and evaluate whether the initial parameters that compelled an investment case for that particular security are still intact. On the contrary most investors will be stuck with inaction. A loss compels most investors to become a long-term investor by default. According to this concept, investors in the dot com era have been the longest-term investors as it took the NASDAQ almost 17 years (2017) to reach its 2000 peak level.

Selling an investment to transition into a new one brands us as traders according to conventional wisdom. Trading has a connotation of gambling attached to it and we can't be thought of as gamblers. That's because as investors we believe that we have used thoughtfulness and logic in making our investment inferences. The same concept applies if our trades comes to economic fruition and we experience an upside in our investments. Why wouldn't an investor want to harness profits if an investment works in their favor in a short period of time. Once again, it is somehow more sophisticated to be a long-term investor and adhere to the initial concept.

A longer or short-term investment is not dependent upon the time horizon but how each investment has worked out compared to the dynamics considered while choosing that particular investment and the variables affecting its future performance.

Warren Buffett, a long-term investor and a follower of the grandmaster Mr. Benjamin Graham is known to make radical changes to his investments when deemed appropriate. He is known to buy securities at great value, but more importantly he has made changes or sold securities at huge profits if he believes that those specific securities have moved into the overbought or overvalued situation. In retrospect, Mr. Buffet has one of the best track records, even if he did not, his actions reinforce the importance of making changes when the investment tells you to.

As mentioned before, in the short term there is a finite money supply in the hands of investors. As money starts to gravitate to an asset class or a security, it starts to build momentum.

Due to the finiteness of money, momentum can only build to a certain extent till disposable or investable assets dry up. As money flow starts to slow down, the momentum diminishes. The exact timing of the crescendo in either direction cannot be determined accurately as human sentiment is a random variable. But once the momentum reaches a point of reversal, investors retreat in hordes and the trade starts to crumble. In other words, the start of a bust from a boom.

As media and communication technology has advanced, access to even the most sophisticated financial products has become easy for the retail investor. Therefore, the velocity of trades and movement of money from one asset class to another or one security to another has increased dramatically.

It is apparent from the volatility experienced during the bear phase in 2008 and 2009, that investor's faith in the buy and hold concept has diminished considerably. To be fair a lot of the erosion was caused by the media.

CNBC; the adult ***Cartoon Network Business Channel*** reports news hour by hour minute by minute with an endeavor to inform and educate investors of the dynamics of Wall Street. So attuned is this network to the masses that it prides itself on helping predict the direction of the market and how an aggregate investor feels: bullish or bearish. I've asked myself umpteen times while watching CNBC whether it helps me or just instills restlessness and a need to react to the news.

The truth is that CNBC needs to keep viewers engaged and increase their ratings so that they can collect higher advertisement revenues. From a business point of view that is great, but it does little for an average investor. I have observed that CNBC brings out bullish experts when the market is trending up and bears when the market goes down. Accentuate fear during the bear phase and encourage optimism during bullish phases. To a certain extent CNBC helps with self-fulfilling prophecies in the very near and short term. Even though we cannot blame CNBC for major booms and busts, media does play a major role in investor sentiment.

Major pundits on Wall Street started to proclaim the demise of buy and hold and the emergence of an actively trading investor community in 2008-09. So, let's think this through. If buy and hold is dead, and trading is in fashion for a prolonged period of time, do a large percentage of investing community have a fair chance at making money. If money is to be made by moving swiftly in and out of certain asset classes and product types, then does an average investor have the time, the talent and the temperament to be successful?

As we have established, in the short-term, asset classes can be artificially inflated or deflated from momentum monies moving in and out of these areas. Does this mean for instance that a doctor has to continuously watch his portfolio between patients, or a teacher has to be on the phone with her broker between lectures or a retired grandma has to trust her broker or advisor to trade her account continuously.

I do not believe that this is a sustainable scenario. Apparently, every major shift which seems to change the precedent is expected to sustain forever. Since the 2008-09 recession, the markets have recovered and made new highs (1st and 2nd Quarter 2017). The tune of major media and as a matter of fact, the general investor has completely changed. There has been a substantial flow of assets from actively managed funds to passive (index) funds. Index funds have experienced significant inflow of monies and coincidently the media is on the passive band wagon as well.

What we fail to not only realize but also to embrace is that change is the only constant on Wall Street and in life. If we could move beyond the “Need to win now…” and inculcate a bit of patience, we will not only be successful investors but also better humans.

7

Wall Street: The Myth That Has Created A $25 Trillion[5] Industry

How much faith do market participants have in the market? Before we can even attempt to answer this question, it would be prudent to define the market itself. The market in my view is an intangible amalgam of investor sentiment. The connection between main street and wall street is of a mere sentiment. The sentiment that Wall Streeters help develop through the research and the products they provide to each other and more importantly to the retail investor.

An industry that was created by goldsmith's umpteen centuries ago by taking people's deposits, has now evolved into one, which continues to create derivatives of debt and equity investments and has perfected the art of marketing these products to the common investor through various mediums.

The beauty of Wall Street is that its success is so intertwined with that of its investing public that its

[5] As of January 2018

success is in the interest of its investors. To keep up the charade that WALL STREET adds tremendous value to investors, the concept of investing is projected as a logical and methodical process to majority of investors.

In case the stock market paradigm was truly projected as what it really is, (of bet on the human sentiment trends, based upon its perception of MAIN STREET) it would have an element of chance and market timing more than analysis and patience. Another phrase Wall Streeter's use is, "… Long term investing…". What does long term investing mean? Does that mean that an investor should hold on to a security for more than 12 months? If so, does that mean 13 months, five years a decade or lifetime? Long term is nothing but a guise that advisers, brokers and portfolio management representatives used to hide behind when things are not going their way.

We as investors need to realize that there are a finite number of participants and finite investable assets in the world. All these investors are attempting to outdo one another by anticipating the flow of assets and moving to that category of asset class before the rest of the market does.

There was a book written by Mr. Richard Bookstaber, known as "A demon of our own design". The author attempts to explain the 1987 crash and the causes leading up to the crash. He explains the advent and the working of derivative products that are designed to provide investors with protection during market downturns.

He then goes on to explain the heavy volume of selling on black Monday (October 19, 1987), and a lack of demand for the umpteen sell orders on various exchanges. In addition, the late Mr. Barton Biggs, an ex-partner at Praxis Capital and ex-chief strategist at Morgan Stanley, explains that boom and busts are developed when majority of investors gravitate towards one side of the table. In other words, markets move based on human sentiment, which could build momentum on the trail of greed creating a bubble or on the cliffs of fear resulting in a bust.

During the history of humankind, we have experienced booms like the tulip mania and busts like the 1929 market crash and economic depression in the United States and the real estate bust in Japan that have lasted for prolonged periods of time.

It can be clearly observed that markets and human sentiment moves in cycles, creating bubbles followed by busts and subsequently creating another bubble which is inevitably followed by another bust. It is only logical that majority of investors have not been able to outperform the market. The point Mr. Bookstaber is making is that the very instruments created to protect us, fueled an event like the market crash of October 1987. Not only that but the efficacy of the derivative products created to act as portfolio insurance, were completely ineffective during the crash.

Most investors believe in the buy and hold strategy. Let's consider the mechanics of the market in a scenario where all the investing population could foresee a bubble and could time the fall or the beginning of a bust. If everyone approached their brokers at a relatively close time frame and placed sell orders for their entire portfolios, how would the market negotiate a trading imbalance of this magnitude? There would not be anybody on the buy side to complete the orders. Therefore, it would not matter if the entire investor population could time the market, as there would be no or lack of buying activity at that time.

Mr. Bookstaber (Author: “The Demons Of Our Own Design”) explains the barrage of sell orders that started to flow to the specialists on October 19, 1987, without any demand for these securities. In situations like this, the market shows that stress in the form of steep imbalances for both debt and equity prices.

We have established that timing the market can only be effective if a few investors take advantage of it. Most investors will revert to some form of advice or advisors to protect them during times of major busts and to outperform the markets during bullish phases.

8

The Death of Buy and Hold: "Was It Ever Alive"?

The conventional wisdom of buy and hold resonates with the cliché "work hard and you shall be rewarded".

What does buy and hold really signify? It is based on the fundamental assumption that if efficient commercial entities produce products and services with adequate economic value for consumers, consumption of these products and services will result in enhanced economic value of these respective entities.

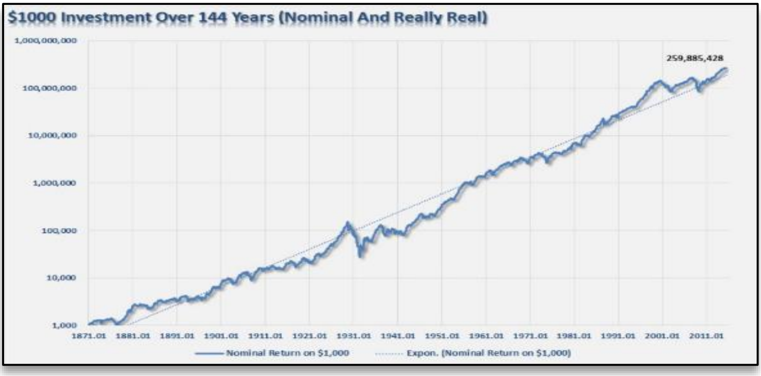
As long as this model and process remains intact, the value of the company grows as more and more investors pour money into its stock. If the entity continues to maintain and enhance its profitability the buy and hold concept pays off for investors. Unfortunately, investors have in the past and will continue in the future to act based on greed and fear. As mentioned earlier, investors attempt to outdo each other and therefore are in an endeavor to invest in opportunities that have either been ignored by the mass investor or would like to get on a bandwagon that seems to have, again, the mass momentum.

Management efficiency and its ability to communicate its business process and the economic fruition its efforts will result in, has the utmost impact on the stock price of the company. In most instances, the management is honest and provides a reasonably good estimation of its business model and progress. We as investors have a choice, whether to believe the longevity of the business model and its ability to add economic value.

Now imagine that an established entity goes through a rough economic patch or experiences a major change in its business model. That would obviously have a major impact on the profitability of the company. Do we believe that this short-term flux is only a temporary financial turbulence the company is facing or is it a major shift in its business model? Obviously, if economic model and the bottom line of a company deteriorates, its equity valuation will also deteriorate.

Markets provides us with a tough choice; jump ship and look for a relatively fundamentally stronger company or hold on to the existing company or add to it as it becomes cheaper. An important element to consider is how much value as specific investment could lose. Even though there are umpteen number of sophisticated security valuation models that attempt to gauge the changes in security valuation, there is no accurate gauge of human perception and more importantly human reaction.

Let me illustrate. Following is the chart that illustrates that $1,000 invested in the US stock markets would generate approximately $260,000,000 ($260 million) since 1870s.



This would be approximately 130 years. The net return on the chart below is approximately 9.1% per year. If we add inflation, the net return per year shrink to about 6.86[6]%.

[6] Chart Source: http://realinvestmentadvice.com/ ,

Empirical evidence shows that one can make money by holding on to investments for longer periods of time.

On the other hand, reality suggests that humans suffer from two limitations: one is the lack of patience and discipline to not only hold on to but also add to securities that have lost significant value during certain phases. Second, by default investors do not have infinite investment time horizon.

As we move through our lives, we are confronted with expenses which erode our portfolios or compel us to pull money out of our portfolios at the most inappropriate time. Even if we could overcome all our limitations, there have been long periods in which markets have performed poorly. Investors could get stuck in phases of negligible market returns and not have enough time to make up for the losses.

Once again, we focus on the logic of buy and hold as opposed to investing actively in the securities markets. If the economy keeps growing at a consistent pace, it will naturally result in expansion of the per capita disposable income. As investors have a higher percentage of income to allocate towards savings or investments, the total pool of market value increases, resulting in higher stock market. If this is truly the case, then we can and should benefit from a buy and hold strategy.

Unfortunately, economies do not grow at a steady pace endlessly without disruptions. Needless to say, even though the world is becoming more global and interdependent, we still see various geographic regions experiencing varying economic expansion or contraction. Similarly, an economy like the United States can have certain industries experiencing expansion as others could simultaneously experience contraction.

If we assume that this paradigm of expansion and contraction takes place in confluence, it would obviously impact how investors perceive the potential for respective sectors and hence respective securities. Perception of investors is directly related to the information they are being fed.

One of the most important advents in the information age has been the emergence of the Internet. Not only do investors have access to up to the minute information, but the Internet has also created a platform for investors to invest with the ease of a click of the mouse. The point is that the total activity of buying and selling has increased significantly over the last two decades. The natural result of this phenomenon is the increased short-term movement of assets from one sector to another, from one security to another.

In other words, the access to instant information amalgamated with the ease of trading has fueled our primal need for instant gratification. Whether we as investors realize it or not, sub-consciously we believe that we can achieve better results relative to other players in this zero-sum paradigm we call the stock market. This is no different than a gambler in Las Vegas believing that he or she can beat the odds and be a net winner.

In this major debate, between the long-term value of a company based on its fundamental growth, which supports buy and hold vs. short run movement of investable assets based on investor behavior, perception or active trading, an investor has to decipher which strategy conforms to their individual personality and which strategy can they consistently adhere to.

9

Dollar Cost Averaging (The Only Free Lunch)

They say that there is no free lunch from Wall Street. I disagree!!!

Diversification is the age-old concept of dollar cost averaging; a free lunch. Most investors, especially individual investors opt to invest in an opportunity all at once. After the investment has been made, it's all about praying to the Gods of stock markets hoping that their investments come to fruition. As most of us are hardwired to be bullish, majority of investor positions are long or benefit from the security gaining value.

In the short term, we as investors are species of habit. We exhibit greed towards the positions that experience positive gains and fear towards investments then go against us or lose value. Our natural instincts compel us to start harnessing profits on the investments that are in the positive and continue to pray for securities that showed negative signs.

I don't believe that as investors we have learned that praying only works so much in terms of our investments. Instead using a disciplined approach of dollar cost averaging could be one of the most effective strategies. Dollar cost averaging is the submission to the fact that we cannot pick a bottom or the top of the security. But we can use this effective strategy to build positions.

Let us assume that an investor wants to take a position in a company by investing on its common stock. If an investor wants to buy 500 shares of a particular company, dollar cost averaging provides an alternative to buying all shares at once. What if the investors started with an initial investment of 30% of the total positions and then continue to add to that position on regular intervals? The math would work as follows:

Current stock price= $20.00, Total shares to be bought =500

Scenario I: Shares bought all at once: 500 X $20 = $10,000

Average Purchase Price = $20

Price of Stock declines to $16.50 after a few months

Total Loss in Scenario I = 500 X (20-16.5)= $1,750 or $1,750/$10,000 (-17.5%)

Scenario II: 30% bought at the beginning = .30X 500 shares = 150 at a price of $20 = 150X 20 = $3,000.

> Stock price declines to $18 in a month.
> Dollar Cost Average another 30%= .30x500 bought at $18 =150x18 = $2,700.
> Subsequently, Stock Price declines to $16.50.
>
> > Dollar Cost Average the rest = 200 (out of the total position of 500) bought at $16.50 =200x16.50 = $3,300.
>
> Total capital spent for 500 shares in Scenario II = $9,000 for an average price = $18 per share ($9,000/500).

Total Loss in Scenario II = 500 X (18-16.5)= $950/$10,000 (-9.00%)

One of the most controversial discussions regarding dollar cost averaging is by the schools of thought that believe that investors continue to buy into loosing trades. The argument is that the markets let investors know if they have chosen wisely or not. Therefore, the argument against dollar cost averaging is that an investor should not continue to buy into a losing trade.

Now let’s consider a real-life situation. In reality, majority of a stock’s movement is commanded by the market movement. Under normal market conditions, stocks can move with the markets, but in absence of negative news specific to the security, a particular stock will not lose most, or all its value based on the market movement.

Obviously, stocks that lose value without real specific negatives are under systematic or market selling pressure. There could be two reasons why investors are selling;

one, profit taking, second; bears are shorting the stock. In both instances, investors will find value in the stock after a certain percentage loss or after the short interest gets to a point where bears can start taking profits by covering their positions.

In addition, market sentiment can change from day to day. Stocks become favorite trading vehicles for traders that can easily become a self-fulfilling prophesy. Therefore, dollar cost averaging could be a great tool for both traders and long-term investors.

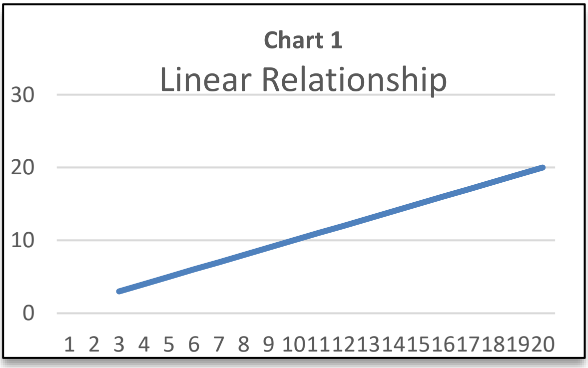
The one ingredient that is needed most with dollar cost averaging is...patience and perseverance.

10

Deviation from Fundamental and Psychological Mean

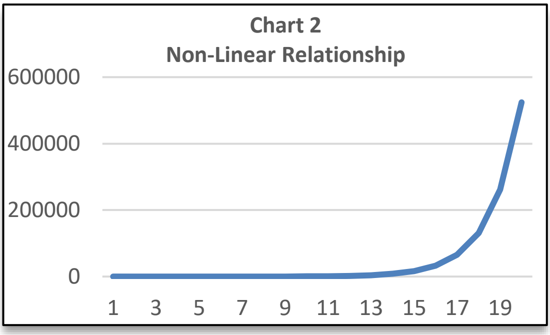
I was introduced to the idea of non-linearity during the early years of mathematics, but the true meaning that relates to real life couldn't have been explained more appropriately in the book "Antifragile" by Mr. Nicholas Taleb.

The definition of non-linearity is "the quality of a function that expresses a relationship that is not one of direct proportion." In other words, the effect created by a unit of input may be different by a disproportionately large amount in its output.



This can be explained with the difference between incremental vs exponential relationships. For example, one plus one equals to two. If we consecutively add one to this number, we will get the following Chart 1. This is a linear relationship. For each unit of input, we expect growth of one unit in the output. In the adjacent chart, we have used a progression of one unit on the X-Axis. The Y-Axis is a result of the growth of the input in the X-axis. So, every unit increase in X-Axis increases the Y-Axis by one unit. Pretty simple!

Now we turn to the Non-Linear Relationship illustrated in the Chart 2. You will notice that this chart is very different than the first one. The output of this chart is calculated by multiplying 1X2, for the first output and then subsequently multiplying each output by 2. So, the outputs start out with 2, 4, 8, 16 and so on.



As you can see, the chart starts out flat but due to the non-linearity of the equation, it spikes up and shows an exponential gain after a few outputs.

The point is not to focus on the math but to recognize that there are events in various dimensions of life that work in a non-linear way as opposed to a direct one to one relationship.

This concept is especially pertinent in the area of Economics and Finance. Let me explain!!!

I believe that the major endeavor of the participants in Capital markets worldwide is to invest in undervalued securities or investments with an objective to earn returns that commensurate with their expectations. Obviously, investors use different methodologies and philosophies to measure security valuations so that they can invest in securities trading below fair value and hope to achieve above average returns. Again, this is a very simplistic view of the markets, but you get the general idea.

Within the umpteen number of ways that individuals and institutional investor value securities, the two major schools of thoughts use fundamental vs. technical analysis or a combination of the two. There are other ways which might be some offshoot of these conceptual beliefs, but that would be beyond the scope of this book and frankly too boring for most readers.

The main difference between the two concepts is that the fundamental valuation methodology uses the parameters measuring the business model of the specific sector or a company and how these variables help propel it into profitability on an ongoing basis. The endeavor is to understand the business model within the prevailing economic conditions and the consumer paradigm in order to help project the profits of the company and the value that should be attached to those profits. It is important to recognize that this methodology believes that investors are rational in their evaluation of businesses.

More importantly, fundamental analysts believe that all investors subscribing to this philosophy are consistent in their belief, and that fair and equitable valuations should materialize based on these models if we are invested for a reasonable time horizon. Again, reasonable time is a subject of debate!!!

To put this succinctly, I believe that fundamental approach believes that majority of the investors are rational in their investing approach, and this rationality will be exhibited over time. Unfortunately, that doesn’t happen in the real world. If that were true, then there would be little need for analysis. Most investors would just buy and hold companies that have either produced consistent profits or distributed dividends consistently.

Empirical evidence exhibits contrary inferences. Investors impact the price of a stock by impacting the supply and demand of the shares of a company based on any set of variables perceived to directly or indirectly impact the profitability of the company. So, despite the importance of fundamental variables that impact the profitability of a company, investors are not consistent in their valuations approach. They let their sentiments and emotions impact their investing behavior, making it very inconsistent, especially if shorter time frames are considered.

Technical analysis on the other hand subscribes to focusing on and understanding investor psychology. The focus of technical analysis is on price and volume of the security or the sector under review. The objective is to use price / volume patterns to understand investor behavior which is assumed to repeat itself. The endeavor of a Technical Analyst is to understand the direction of the stock price and the momentum behind it.

Basically, the assumption is that an average investor will repeat her behavior over time. For example, if the stock price of a company has experienced a large move up or down and the average volume of shares is increasing, then it would be prudent to assume that this momentum will attract other investors which would propel the stock price higher or lower respectively. Subsequently, the stock price continues to rise or fall, while the volume of the shares traded start to decline. This trend could signal a reversal in price. Despite this simplistic illustration of fundamental and technical analysis, it is important to recognize the basic differences between the two approaches for the purpose of the endeavor undertaken in this book.

As markets and investors have matured, so have the market evaluations models. In many instances, investors use an amalgam of fundamental and technical analysis. Intuitively, we may feel that fundamental and technical analysis are divergent, but if you look closely, both schools of thought are attempting to determine a fair valuation of securities and an appropriate time and value to invest in them. Both analyses is consummated by humans (whether they use machines or not) with an intention to understand how the investing landscape reviews various investment(s). Again, the point is that humans could use different techniques or variables, but the inferences derived by these techniques and models ultimately reverts back to whether investors involved in a particular security view it in a positive or negative manner.

Certainly, there are instances when changes in pertinent variables could change the way an investment is viewed completely. These are cases which involve fraud, manipulation, insider trading, merger or acquisition etc. These are classic examples where a significant shift in the fundamentals changes the security valuation significantly.

For example, if a company is being taken over by another, there will be a tender offer by the acquiring company which will become market information and hence impacting the value of the company being acquired. The value of both companies will obviously depend on the terms of the merger or acquisition. Again, there are variables that will impact human behavior in these instances. Investors may value the aquiree company below the takeover price offered, due to uncertainties introduced by legalities, deal financing, investor acceptance etc. There are umpteen factors that would command the trading price of the company from minute to minute, hour to hour, week to week and so on. The point is that investor sentiment is of prime importance and cannot be ignored just because we put certain numbers on an excel worksheet, whether they are fundamental or technical data.

I believe that human psychology has to do a lot with security prices and their movement. After all, security prices are a function of supply and demand created by buyers and sellers in the market. So even if the fundamentals of a company are used by investors to infer the ultimate price of the security, it’s crucial how the average investor interprets and act on the inferences driven by these models. In other words, exogenous factors like the overall economy, political environment, disposable income, inflation etc., are constantly impacting human psychology.

Obviously, market psychology is comprised of the average investor sentiment which creates the prices of various securities in the market. There could be investors who are extremely bullish or bearish on a security, but the prices of most securities are governed by the average of all the investors interested and involved in that respective security.

This phenomenon is the most important aspect in terms of price fluctuations especially in the short to intermediate time horizon.

11

Impact of Psychology on Fundamentals

As mentioned, one cannot ignore the impact and the importance of psychology on securities price movement. It is not only the significance of the average investor psychology but the magnitude of the emotional impact that is worth recognizing and understanding.

In other words, an event, a development, a change in management, a new direction in regulations pertaining to an industry etc., can and will definitely change the fundamentals associated with an industry and hence companies in that particular industry. The point is that the change in the prices of respective securities, either on the negative or the positive is much higher in magnitude than the rate of change in the actual fundamentals associated with the underlying company. The primary reason for these fluctuations is human psychology as opposed to isolated attribution to fundamentals.

Humans are a progressive race and have an innate ability to move forward even under adverse circumstances. Their resilience is the reason for their success and maybe their failure ultimately. This is obviously not a book on philosophy, but the importance of this topic needs to be expressed as it is pertinent to the topic at hand.

Let's view the role of technology and its advent in our socio-economic lives. Disruptive technologies have played an important role in the betterment of humanity since time immemorial. Every time a new technology is introduced into the economy, it is generally valued at a premium. Take any new technology in the past. Some examples would be: the railways in the 1930s, the radio in the 1940s, the auto in the 1950s, the internet or dot com boom in the 1990s.

All of these concepts changed our lives and how we operate as humans for the better. Despite this statement, the early acceptance of these concepts and technologies created a herd mentality in the arena of capital markets and created bubbles in all of these respective areas before valuations returned to a reasonable mean.

Let me provide a few recent examples to illustrate this concept. One of the most sort after company that started in the dot com era is Amazon.com. Amazon is defying conventional behemoth retailers like Walmart and Target. Amazon has provided a total return of 34,434% since May 1997 (1997-2017; close to 20 years).

That is only half of the story; the stock has lost 40-50% of its value during this time more than 4 times (See Chart below[7]).

We will all agree that Amazon has been one of the most disruptive online ecommerce concepts of the technology revolution. Having said that, this company trades at over 250 times (Q4,2017 [8]) the earnings it makes per share. Also, for most of the twenty-year period the

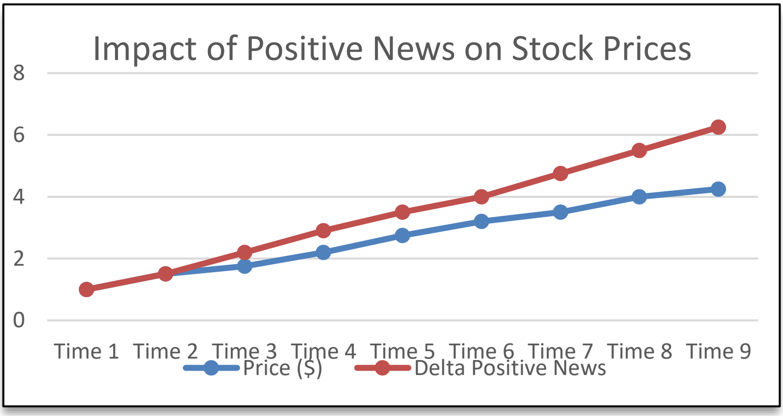
[7] Source: https://www.investopedia.com/news/amazon-rally-could-end-hidden-resistance-amzn/

[88] Source: www.yahoo.com ; Amazon rate of return time period=Q2, 1997 – Q1, 2017.

stock has provided over 38,434% return, the company has had negative earnings. What gives???
This is a classic example of a good business model, fueled by above average growth and finally propelled by bullish investor sentiment. Despite the facts of the company's stock price, we cannot forget the dismal performance of the stock during market declines if the 2000-2002 and 2008-2009.

This brings me to the most important concept of this book. I believe that human psychology, especially in the paradigm of capital markets is driven by "Fear and Greed". Investors are constantly vacillating and seesawing between of these two emotions. Once greed takes over, investors tend to forget the importance of evaluating a security based on its fundamentals. Times when greed dominates, investors rationalize a certain pattern (primarily bullish) till the time price levels get to the point where additional positive news starts to have diminishing impact on the upward momentum of the stock price.

It is important to note that positive changes in the fundamental variables impacting the business during the initial stages of the rising stock price have a higher impact. As prices rise the impact of improving fundamentals starts to diminish. In other words, as prices rise, the improving fundamentals will continually have smaller and smaller impact on the price of the stock. The delta of the fundamentals has to continue to increase at an increasing rate in order to have the same impact on the magnitude of the price of the stock.



Equation 1[9]: $\Delta\ E(Price)\frac{1}{\propto}\sum \quad (\Delta(Positive\ News\ or\ events))$

At this point the probability of reversal starts to emerge. At the inflexion point of this momentum, FEAR replaces GREED. The impact of good news starts to diminish, and it becomes more and more difficult for the security price momentum to be sustained.

[9] Equation by CGAM, LLC (Manu Walia): 2017

Stock Value (E)= Fundamentals + Psychology; The basic concept can be expressed by viewing the chart below. It can be seen that initially, the value of the security increases with the same magnitude as the news. As time passes, the magnitude of the impact of positive news starts to diminish and there is a divergence in the effectiveness of the news and the stock price.

The point of Inflection: Once the point of inflexion is reached, which could take weeks, months or even years, emergence of fear (instincts: a progeny of culture and one's nature) start to kick in instinctively. At this point, the stock price will have severe resistance from its continued upward trend and the second phenomenon, which is the first in reverse will occur.

The element of Fear will compel investors to gravitate towards exiting this position which recently seemed omni-potent and one directional (up and up and up). At this point bad news will have a larger impact on prices and investors shall punish the stock they loved so dearly.

So, what does this all mean? If history indicates that elevated or depressed prices revert to their mean, then there is a reason for this. Most analyst will state that the price of an elevated stock should lose its momentum due to deteriorating fundamentals. I believe that more importantly, it is human (investor) psychology that naturally works in favor of mean reversion.

As mentioned in Equation 1 above, the impact of strong fundamentals starts to diminish as stock prices rise and similarly the impact of weak fundamentals also starts to diminish at lower price levels. Again, it is the importance of the prevailing perception in the investing community, of the fundamentals relating to a sector or a company, that matters more than the fundamentals itself.

$$\boldsymbol{Equation\ 1}: \Delta\, E(Price)\frac{1}{\propto}\sum \quad (\Delta(Negative\ News\ or\ events)$$

It is human nature to instinctively focus on Greed as prices experience extraordinary rise and move away from reasonable levels and vice versa focus on Fear on the downside. I strongly believe that aggregate human nature culminates to reverse trends on a continual basis. By this I mean that the individual may not realize how he's is behaving in a group, but a group consistently brings security valuations to a reasonable mean.

It is in human nature to be selfish. Both greed and fear manifests selfishness. Even though every individual is separate from a group, it contributes to the aggregate behavior of the group. The direction of the group-think vacillates between greed and fear, especially in the stock markets. Because security values can not go to infinity (a bubble as a result of greed), at the same point, individuals in the group start to stray away from the group-think or the dynamics of the prevailing conditions start to instill fear in the equation of greed. Once that happens, individuals start looking for the exit so that they can profit before the trend reverses. Once this happens, the aggregate sentiment changes quickly, initiating the reversion of value to a reasonable mean.

Therefore, I believe that investors with serious discipline and contrarian nature do well on a consistent basis. On the other hand, if investors decide to stay with the markets for the long term and do not care about the short and intermediate term gyrations, then they should invest in index funds. This will not guarantee superior results, but it will eliminate the emotional roller coaster an investor goes through trying to outsmart the markets. Again, the downside with passive investing is that you go up with the markets and similarly down with the markets.

Volatility of Human Behavior in reference to Market Volatility

During normal time (a relative term), humans/investors exhibit a consistent and normal (again, that's relative) behavior with respect to traditional market models. In other words, investors adhere to conventional buying and holding to good quality companies. In addition, these investors value stocks using accepted market and security models during normal times.

Again, when I mention words like NORMAL, TRADITIONAL and GOOD QUALITY, I am indicating to a normal behavior that is around the mean behavior when used in reference to empirical behavior of investors over a long period of time.

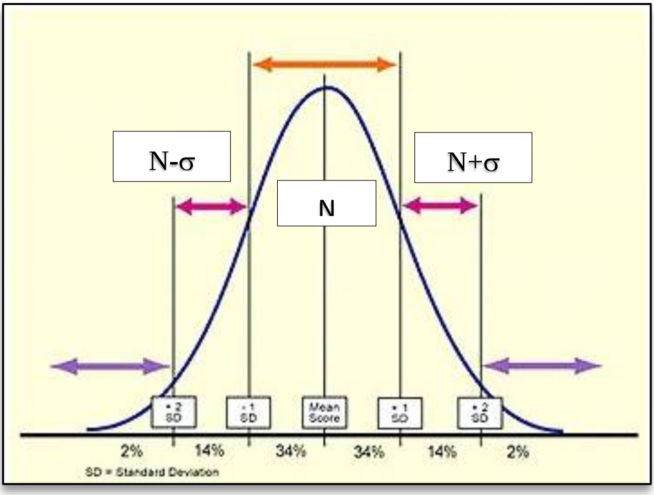
It's crucial to note that the story changes radically when markets move into not such normal or favorable times. I believe that these abnormal times are created by a cumulative sentiment of investors behaving badly. This is how booms and busts are created.

An average investor would follow the accepted market norms and economic rules, based on what the market gurus have instilled in us, but the moment things move abnormally away from the mean in either direction, we as investors instinctively act accordingly to our animal spirits.

Let me explain!!!

What are our Animal Spirits when it comes to investing? We either accomplish our task of making money which brings elation, or we stumble on the path of investing and lose money, which impacts us negatively, both financially and emotionally. The Animal Spirits in the arena of capital markets can be summed up in two well-known emotions: FEAR and GREED.

If we experience the markets going against us to a certain point; let's say from N to N- σ (σ =sigma or one standard deviation) (where N=normal markets, N-σ = Normal – σ), which is a negative move or on the other hand a positive move, N to N+ σ, we as humans are evolved enough to view this as a normal occurrence and more than likely not make any changes to our portfolio of investments. If we pushed the envelope further and assumed that the markets are now at either N-2σ or N+2σ, we will feel out of the normal



element and our Animal Spirits start to kick in.

At levels that are diverging from normalcy (again, I use this numeric / quantitative value to explain a concept and not being specific) the aggregate sentiment of an investor group experiences a shift and significant inconsistency in behavior is exhibited. No longer can a smart and experienced investor convince herself to adhere to the conventional models of valuation, or to

think logically as she did during the normal market conditions.
The metrics that she had complete confidence in during normal times, now seem completely useless. During turbulent times, an average investor feels completely helpless and hence turns towards instincts like fear or greed in making decisions.

This behavior is not deliberate but a result of years of survival instincts like fight or flight. Again, this phenomenon is seen on both sides or abnormal market moves: bubbles or busts. During bubbles, investors give into greed and emotionally justify the seemingly ridiculous inflation in the valuation variables that logically indicate to irrational valuations.

On the other extreme (busts), investors make decisions emotionally and justify them logically; I call this “IRRATIONAL RATIONALIZATION”.

12

Evaluation of Now as Opposed to the Continuum

It is in our nature to keep score. I believe that the tendency of keeping score, in other words competing incessantly may not be just instinctual but also inculcated by our socio-economic environment. I do want to emphasize that the basic survival instincts may have been exaggerated by societal pressures. These pressures come in different forms but compel us to fight for hierarchy in society. Again, competition is a way of establishing superiority.

The stock market, as I have mentioned before is comprised of human behavior; actually, the aggregate human behavior. Investors like Warren Buffett are much more successful than the rest of us for two reasons. One; a relatively better ability to find undervalued companies. Second, and most importantly, <u>**UNMATCHED PATIENCE**</u>.

In the chapter “IS BUY AND HOLD DEAD”, I have argued whether buy and hold truly works for investors. Fortunately, it has for Mr. Buffett. We can argue that he started in a bullish phase of the market or he has the staying power for the long haul, but then again, I digress.

As an investor, our goal is to make money. I understand conservation of capital and buying fixed income products but at the end of the day, investors want to make money. The phrase, "RETURN OF CAPITAL" has become popular because investors have felt the wrath of the markets twice in one decade (2000-2003 and 2008-09), which were probably the most severe times in the markets since 1930s.

As an investor goes through such severe market traumas, the thought of an adverse scenario(s) repeating itself stays fresh and those feelings haunt at the smallest hints of history repeating itself.

A successful investor is one who can view the markets in a continuum and proactively make decisions. I emphasize pro action because most investors continue to make decisions based on the aggregate direction of the market.

I believe that that is a recipe for mediocrity. John Maynard Keynes once said, **"Worldly wisdom accepts a conventional failure over an unconventional success…".**

We as investors are comparing our performance to the major market indices and are constantly in an endeavor to beat these indexes, which again represents the aggregate markets. Remember, investors will easily console themselves even if they are in the negative (net results), as long as they beat the respective market index. If this type of rationalization is not flawed and represent over influenced attitude, then I don't know what does.

The Connection of Wall Street to Main Street

What separates Wall Street from Main Street? Most investors may believe that there is some kind of tangible connection between the two arenas. On the contrary, I view Wall Street making bets on corporations as gamblers makes bets on professional sports teams in various sports. As a gambler would evaluate the strength of the team, historical wins, averages of each players etc., similarly Wall Street is constantly reviewing variables like company management efficiency, revenue projections, earnings ratios relative to historical data to evaluate a reasonable price of the stock of the respective company.

Majority of the working class is invested in the capital markets one way or another. Through their company 401(K) or retirement plans, individual retirement accounts, personal brokerage accounts, Family trust accounts, etc. The total market value of the US Stocks/ mutual Funds is excess of $20 trillion[10]. Would that make this a big business? Yes. Would that create money making strategies for a lot of people tending to know more than what they actually know; more than we as investors realize.

We can't blame them as any business person would want to develop credibility to earn their keep. The truth is that the market (Wall Street) is comprised of

[10] As of December 2017

humans. In other words, when humans evaluate a security, they cannot help but include their biases, educational and social background, emotions etc.

In other words, the aggregate sentiment of a pool of investors is what determines the value of respective securities based on supply and demand. Demand for a particular security commands price. The most important variables effecting the stock price is the overall market and events specific to individual companies.

A popular saying is "A rising wave will lift all boats..." I view this as a dumb driven cattle behavior. If for the moment, the overall market believes that things are great and the overall economy or a specific sector is doing well; the net sentiment is favorable. At this time even, bad news can be shrugged off and stock prices can continue to rise. On the flipside, as aggregate sentiment turns from Greed to

"I just got it! Life is not about instant gratification."

Fear, even the most attractive stock valuations are ignored, and stock prices experience abnormal and unwarranted declines in their respective values.

The point is that the connection between Wall Street and Main Street us one that has a conduit of emotions. If an investor can control those emotions, and more importantly control the contrarian emotion, he can then significantly increase the probability of success.

13

Action Vs. Pro-Action

We as humans are hardwired to be reactive. We watch a trend and believe that that trend will remain intact forever. Proponents of a trend are vociferous till the time a new development either decelerates or disrupts that trend. When new variables enter a scenario and the prevailing trend reverses or takes a new path, two things happen. One, different experts emerge with a new point of view and secondly, existing experts will start to change or modify their previous rhetoric.

I have observed that one thing remains the same. The average rhetoric and recommendations continue to follow the prevailing trend. It also needs to be recognized that new and modified commentary and justification of changing environment can be self-fulfilling prophesies; to a certain extent in most cases and to an extreme extent in some cases.

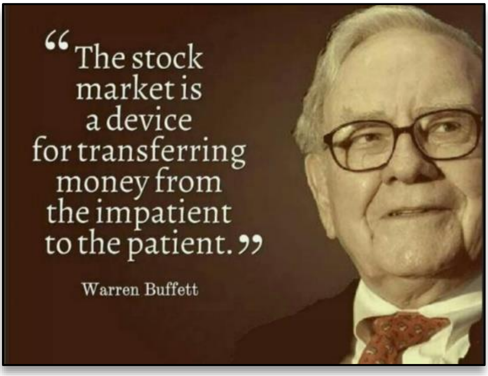
Investors can achieve outlandish returns or in technical terms, generate alpha in their portfolios by benefitting from this concept. The belief that all trends revert to their mean at some point and investing accordingly could reap fruitful results. The trick is to take a position proactively against a trend with a belief that the probability of emergence of disruptive variables increases as the trend continues to gain momentum on either bullish or bearish side.

The inferences of this theory are based on empirical evidence of past events that consistently support the reversion of trends to their mean value. In other words, trends are like rubber bands. The more they are stretched, the more they unwind and end up over shooting its mean, both on the upside and the downside.

As mentioned, umpteen times in this book, I believe that the market is formed of finite investors with finite investable assets at a given point in time. Assets in essence travel from one hand to another. If we take snap shots of the movement of assets across various asset classes (Large, small, international etc.), there will be time that major trends, (just like the movement of clouds on the Weather Chanel) can be spotted vividly. The problem is that because we are herd animals and instinctually are not wired to go against the general consensus, we do not act on our trend recognition instincts. But then again, if all investors recognized trends and acted simultaneously, they would create another trend.

It is important to recognize that capital markets work in a capitalistic manner (hence the name). In other words, participants in the market do not care if others win along with them.

It is a zero-sum game in the short and medium term. Fear and greed, the two main ingredients in human psychology, have an uncanny way of taking over exactly at the wrong time. Most investors will have a very tough time sticking to their convictions when the entire herd is moving in a different direction.



For those who do see a trend may not act in a contrarian manner because trends can go on for a long time. Investors like Warren Buffet have trained themselves to act against the herd and more importantly, <u>have patience to see their trades come to economic fruition.</u>

Most of us do not put credence in waiting, while others (the aggregate bunch) are blindly following the trend.

Therefore, pro action in my view is far more efficient if an investor can act on it at an appropriate time. By that, I do not mean that we should or can attempt to buy at extreme bottoms and sell at extreme tops. Pro action means that we attempt to understand that when most investors start to believe (and they always do) that its different this time, both in a bullish bubble and in a bearish trough, the contrarian investors should either stay on the sidelines or go against the general trend.

A very valid example is the price of oil in 2008. Oil was predicted to reach $100/Barrel, which it did in 2008. At that time the global growth was intact, and the dollar was declining. Because oil is a dollar denominated commodity, it experienced a negative relationship to the US dollar and continued its accent to mid-$100 per barrel in the declining dollar environment. At that time Goldman Sach's published a report on oil with a price target of $200 per barrel by early 2009. Most investors bought the analysis and bought into the hype.

To put this in perspective, oil traded at approximately $15-17 per barrel in the year 2000. This means that this commodity gained almost 10 times in about 7-8 years. If we use 3-4% inflation and another 3-4% gain in consumption per year for every emerging economy like India, China, Brazil etc., we would infer a growth rate of about 6-8% per year. At this rate the price of oil should have doubled in 7-8 years. In other words, oil should have been at $50-60/ barrel. Instead oil ended up trading at $147 per barrel at its peak during the summer of 2008. Subsequently, oil fell to $37/barrel only to rise back up to $75-80 per barrel by early 2010.

I, therefore, cannot emphasize the importance of being pro-active when managing money. Again, please do not confuse pro-action with trading activity. Charlie Munger has mentioned that Warren Buffett and he have experienced a 50% decline in Berkshire's stock price, four times in their career. I am sure that both these individuals pre-empted the possibility of an experience like that and had pro-actively decided to stay the path and maintain their discipline.

Again, if an investor starts to make plans or consider options in an adverse situation, its already too late.

14

Role of Emotions

Impatience: The Key that drives markets!!!

An average investor's (human) mind is like an aggregate of prevailing market opinion. In other words, the heart of the investor projects all the fear or greed reflected in the markets based on historical and current events. The emotions that command fear and greed of an investor reflects consensus feelings of the market.

Some will argue that the emergence and evolution of machines and Artificial Intelligence (AI) has superseded human capabilities in regard to how markets have worked in the past. There may be some truth to that, but I disagree with the paradigm that the way of doing business of investments have changed. Artificial Intelligence is created by humans. Coders, who program the machines can only use empirical evidence and teach the machine to simulate a human mind. I understand and realize that a machine created to learn from various scenarios will evolve much faster than any human but at the end of the day, will be an offshoot of human sentiment.

A sci-fi movie known as “Ex-Machina” illustrates the probable disposition of a super intelligent machine. In this movie, a female look alike robot, programmed with AI, exhibits intelligence, especially with manipulative qualities for achieving its goals. Again, if we look beyond my interpretation of the theme of the movie, it is apparent that machines will initially learn from the cognitive and emotional qualities of humans. Algorithms written by the smartest people in the world to make money in the market cannot but harness the main reason of their existence; to make money. <u>“This inherently is fueled by greed”.</u>

It is hard to have a point of view that is opposed to the general consensus. I guess that’s why we are known as social animals. Even if one has the capacity to think differently, it becomes tougher to maintain that thought process when things are going against you.

This is particularly evident in the arena of the stock market.

Let’s label a free-thinking investor as a contrarian investor. Let’s also assume that this investor finds a concept that goes against the prevailing trend. The gutsy thing to do is to take a position in the market using the contrarian concept for this investor. Now, if the market provides fruition to this investor with regards to his concept, he then must feel empowered and continue to do what he is doing. On the other hand, if the market starts moving against this investor, would she still have the same conviction and feel empowered.

We all know, that that would not be the case most of the times. Most investors cannot maintain contrarian stance for prolonged periods of times. However, historical data shows that contrarian investing has reaped exceptional results.

Having said that, it is also true that majority of the times a contrarian investor will feel the pain if an investment moves against him. The feeling of helplessness lingers on as the prevailing trend continues and the contrarian trades seems to be too premature. At this point, it becomes tougher for an investor to hold on to her convictions. It is natural to second guess oneself when not only the investor community is against you, but also the agony of losing his personal wealth in effect.

It is time like this that influences humans to make decisions based on emotions. In this particular case, it would be impatience in addition to fear that will influence an investor to make an irrational decision. The lack of economic fruition with a particular trade, and this case a contrarian one would not be palatable for any investor.

The point is that impatience perpetuated by the direction of a trade could develop an aggregate sentiment that could drive markets one way or the other.

Patience is a Virtue: Or Is It?

There are two types of investors; one who believes in buy and hold and the others who believe that they can trade actively and beat the major market indexes using a trading or investing strategy, whatever that maybe. The latter group believes that they can time the movement of the security or the market based on predetermined criteria, whether that pertains to fundamental or technical analysis.

The former type of investor believes that the price of the security will follow earnings and growth of a business entity, and as long as the company is on sound financial footing, the price of its stock will converge to its earnings. In most instances, if the movement of the stock price has gone against their concocted fundamental financial paradigm, they take solace and comfort in believing that in the long term their investment will come to fruition.

I believe that during different market cycles, investors face self-fulfilling prophesies that decide the fate of their success or failure. In case an investor experiences a bullish phase for the overall market, most securities will move up and investors may be fooled in believing that their success is directly attributable to their stock picking prowess. On the flip side, most investors get dejected when their investment selection experiences losses, which could have been attributed to a macro market decline. As most asset classes (not all) move in unison with the market, investors feel disillusioned and believe that they are failures and are not meant to be a part of this alleged esoteric investment arena known as the stock market.

I believe that patience plays a big part in successful investing process. Take Warren Buffett for example. Known to be one of the most successful investors of all times, I believe that the biggest quality the man possesses is **"Patience"**.

There is a reason that I believe patience us so important. Let me explain!!!

As investors, our instinct is to try and evaluate the current price of an investment in consideration, relative to what we believe its value will be in the near future. If the current price valuation is lower than that of our expected future value of the security, then it becomes a candidate for an investment. The key point to focus on is what we believe are the variables that will come to fruition for the security to achieve the target value we have placed on it. These variables could be as little as one in a certain situation, or a combination of umpteen variables in another.

Our Socio-Economic background plays a huge role in our ability to short list forward looking variables in our analysis. An important element in any type of process or model we develop is that it's based on certain assumptions. We all know what happens when we ASS U ME!!!

Many times, the variables change with the respective investment model under consideration. But the important thing to consider is that a perfectly valid model under one set of variables or paradigm may fail if a few variables change, are modified or are deleted.

Therefore, it is next to impossible to predict the valuation of a security on the basis of dynamic variables. Investors like Warren Buffett, review a stock or a bunch of stocks, decide whether they are solid companies that are positioned well in their industry and trading at attractive prices.

Once this decision is made, they do not second guess themselves. Patience does two things; one it takes away the guessing game of buy and sell and second, it helps an investor look beyond the short-term price fluctuation, which could impact investor behavior and compel them to make unwise investment decisions in the form of selling and buying at inopportune times.

15

The Fallibility of Our Predictive Powers

No matter how intelligent we believe we are in regard to our predictive process in the markets, we have to recognize that we are dealing with the markets which are comprised of human sentiment. In other words, we can gather all the historical information in regard to economic analysis and portfolio management and evolve the most sophisticated model (s), but we will never eliminate the innate erratic behavior of humans based on instincts like fear and greed.

Most analytical models are based on variables that are known and data that is historic. While developing these models we believe that history will repeat itself and do it in an orderly manner. We forget that human nature is akin to the flight pattern of a fly. A fly moves in an erratic manner and the pattern of the flight is never the same. Based on this belief, am I saying that all the models that the most intelligent economists and analysts develop have little or no pertinence?

Even though this is a very outlandish statement, there's a lot of pertinence in it. A supposedly sophisticated analyst can use the most logical variables in developing a model, authenticate the validity of those variables by back testing them and then use these variables to predict the future of capital markets. Unfortunately, or fortunately some or most of these variables can be rendered useless with a slight change of the economic, social or political environment.

A model can continue to work if the variables considered continue to be valid and seizes its validity with the change in the respective importance in these variables. For example, during post Lehman brother's demise (late 2008), markets all over the world lost complete confidence in the US financial system and there was a total system failure. It was a black swan moment that nobody expected. Subsequently, every analyst on the street predicted financial Armageddon.

Statistically, most buy and hold investors do better than traders and short-term speculators on an average. I believe that reason for this fact is the following: Most investors do not have the time, talent or the temperament to consistently trade the markets. Even among the ones who possess these qualities, few are consistently successful.

The major endeavor of the human race has been and continues to be PROGRESSION. As the capital markets use the fundamental basis of business success to evaluate the intrinsic value of a security, capital flows in and out of companies based on their short, medium- and long-term performance. As long as a company, a sector and an economy as a whole does well, money keeps flowing into those assets. On the same token disruptions in a socio-economic set up can spook investors, resulting in trend reversal, which destroy significant value of various asset classes created over years.

If we look at the longer-term continuum of the human race, we will recognize that we are a bunch of resilient folks. Color, race, creed or sex doesn't matter; we keep on moving forward in major aspects of our lives. It is no different in the capitalistic world. As, employees, companies, sectors and in turn economies keep adding value to resources and services, respective governments keep printing money and increase money supply in the system.

Competition creates value and provides better and cheaper services to the residents of that particular economy. Due to the acceleration of higher productivity, the disposable income in net terms keeps increasing.

This results in increased money flow to assets that are economically fruitful. In other words, this is a vicious cycle that continues and brings in more money to capital markets.

Therefore, if the world as an economic entity continues to add value to the raw materials and services, the value of companies that do that continues to increase on a net basis.

If an investor is lucky to be caught in a positive cycle of economic expansion, then it’s better to buy and hold an investment based on the concept I just described.

Conclusion

What does this all mean? Investing is an ever-evolving process that takes shape based on the dynamics of human sentiment as humans evolve. It is important however to note that the basic instincts, tendencies and emotions of humans have remained the same for thousands of years. I don't think that I can summarize my thoughts on investing in a paragraph, a page or even a book…instead it's a continuum!!!

The most important point I would like to make in this book is, the significance and impact of the element of aggregate human behavior and how it shapes the most important aspects of our lives, not only in the field of economics and finance but also, in all aspects of our lives.

Further, I would like to emphasize that the aggregate human (investor) behavior can and does influence everyone's thoughts and how we react (not pro-act). Aggregate human behavior is not necessarily always correct when it comes to investments and capital markets. When I say, "not correct", I don't mean that investors are right or wrong, but that the herd moves in droves which results in mediocre results at best. On the other hand, if harnessed properly, a contrarian view can bring economic fruition in the area of investing to investors with an amalgam of contrarian fabric and patience.

Market participants have operated on a herd mentality since time immemorial. It could also be our innate ability of being conformists and not confrontational, as we have evolved into a more civilized society. This may have been a function of the concept of “Strength in numbers”. This has led to the enhancement of our basic instincts of behaving like pack animals. Needless to say, majority of investors just follow the crowds.

The role of media plays a very important role in the field of investing. Of course, media has also evolved over the year, from print to Radio to Television and now the internet. Whatever era we consider, media has played an important role in influencing investors. The progress in media, especially the advent of internet has encouraged and incentivized more and more investors to self-manage their money.

Most investors do not have formal training in the field of investing and therefore look towards the media and consensus views to make decisions that are crucial to their financial lives. With the biases and interests of respective media, investors get influenced. More often than not, the trend becomes their friend, which seems to be the easiest way to invest. As mentioned before, John Maynard Keynes has said, “People will condone a conventional failure, but will frown on an unconventional success”.

Again, the combination of abundance of information, ease of trading platforms and economies of scale for trading/investing cost has given rise to a large group of investors who believe that they are reasonably sophisticated to invest on their own, without any professional guidance. Their intent is commendable, but their behavior is nothing short of acting like a herd.

Majority of this new breed of investors make decisions based on the news and data being fed by the media they follow. These investors may not realize that they are being influenced by media and make decisions based on biases that are detrimental to their financial well-being.

As mentioned, umpteen times in this book, **I strongly believe that human behavior works in a way that results in mean reversion.** This is true in most aspects of life, specifically in finance and capital markets. Humans are driven by fear and greed, which are primal instincts for survival. We use these instincts subconsciously to guide us in most of our decision-making processes.

Most people believe more in the herd (immediate family, friends, colleagues and trends created by the media) than in themselves. In other words, “There’s intelligence in masses…”. When we make decisions based on herd mentality, there is little or no conviction and longevity in those respective decisions. As the herd moves along, newer participants fuel the fire and the trend continues forward, subsequently creating a bubble.

Obviously, bubbles have been experienced since humans have been alive. From the Dutch Tulip mania in the 1600s, the Railroad bubble in the US during the late 1800s, the US Stock market crash in the 1930s that put the US economy in the biggest depression, to name a few. In addition, we cannot forget the more recent dot.com bubble in 2000-2002 and the 2008-09 global financial crisis which almost brought the global economy to a halt.

Even though we have enough events, experiences and data to recognize and understand bubbles and busts, why do we then consistently succumb to the instincts of fear and greed and make wrong decisions at the wrong time. I will not attempt to philosophize why, however, I would suggest that a few select group of humans who have understood this phenomenon and believe in its existence and reoccurrence, have benefitted from it, especially in the field of finance. In order to succeed in the world of capital markets one has to understand the stages of a cycle the aggregate human behavior is going through. By aggregate human behavior, I mean the average sentiment created by participants in a certain aspect of the markets, that meanders the trend with its own momentum. Even though true fundamental factors propel an asset class or security higher, its greed that fuels a trend into a bubble. At this stage, most investors succumb to the herd and fuel the bubble further.

My belief is that the further we are in a bubble, the higher the probability of its reversing. We as a group may not recognize or have apparent reasons to see the reversal of a trend that created the bubble, but the human element or our very nature will eventually create circumstances that will ignite the process of reversal.

In other words, as bubbles get bigger, a larger magnitude of good news is needed to continue the trend. This process continues till we reach a point where even an array of great news is not enough to inflate the bubble further. This may happen for a number of reasons, but an important ingredient is the lack of funds. As funds move into a security or asset class, it pushes it higher. Again, it's the aggregate investor that is using his/her perception to make these decisions.

Even though a crowd or a herd can remain frantic in one direction, they have access to finite funds that they can allocate towards an idea, an investment or in this case a bubble. Once these funds are either allocated towards an investment or an idea, despite the aggregate sentiment, we will see lack of fuel for the fire, or in our case the bubble. At this point the impact of good news diminishes and even negligible amount of negative news is enough to reverse the trend, or the start of the deflation of that bubble. I call this the reversal of greed into fear.

When this happens, an inflexion point is created. Investors repeat their herd mentality in reverse. Greed is replaced with Fear. Initially, investors pretend to be prudent and not all will head for the exit. But as the trend fizzles and participants retreat, fear will generally turn into a panic.

Ask yourself, do you want to live a guarded and protected life in the shadow of the herd, or are you bold enough to venture out and away from the herd in search of grandeur, riches and fulfillment???

Notes:

Manu Walia

Manu Walia has been in the financial services business since 1994. Manu received his Bachelor's in Sciences from St. Stephen's College in New Delhi, India in 1988 and subsequently pursued post graduate studies at Eastern Michigan University in Michigan, USA.

After working in retail brokerage for a few years, Manu returned to New Delhi, India in 1995 and spent a few years in New Delhi working in financial services. Manu was primarily involved in Corporate Finance, performing due diligence on private equity projects. Manu returned to the USA in 1997 and since, has been involved with portfolio management for high net worth individuals and corporate accounts. During this time, he worked with Morgan Stanley Dean Witter and Charles Schwab & Co.

Manu incorporated Continuum Global Asset Management LLC in 2004 with an objective to provide financial advisory services. Manu's endeavor has been and continues to be able to provide value in terms of managing risk and optimize total portfolio return.